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EDITED BY

J. A. THACKER, M. D.

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COUGH AND EXPECTORATION:

Their Diagnostic Value as Symptoms of Pulmonary Tuberculosis, with Remarks on the Importance of a Microscopical Examination of the Sputum.

By A. P. Dutcher, M. D. Cleveland, Ohio.

I.—Cough and Expectoration.

Cough and expectoration are among the earliest symptoms of pulmonary tuberculosis that attract the attention and awaken the fears of the patient or his friends. At first it is generally slight, occasional and dry. It occurs mostly upon the individual's getting out of bed in the morning, or if he makes any unusual exertion during the course of the day. It feels to him as if it was caused by irritation about the throat. Sometimes it will cease for a while in warm weather, and recur again in cold. By degrees it begins to be troublesome at night, and attended with more or less expectoration, and, as the disease advances, it becomes one of the most annoying symptoms connected with the malady; teasing the victim of phthisis by day, and disturbing his slumbers at night, he sometimes longs for death to terminate his sufferings.

According to Dr. Thompson the series of changes that occur in the appearance of the expectoration in the different stages of this disorder may be conveniently classed under four divisions, namely:

"First, the salivary or frothy; second, the mucous; third, the flocculent; fourth, the purulent.

"The *first* is what you would expect from irritation, the result of either pulmonary congestion, or of tubercular deposits.

"The *second* would indicate a more confirmed affection of the bronchial tubes.

"The *third* is peculiarly characteristic of secretion from vomica, modified by the absorption of its thinner constituents

"The *fourth* is indicative of phthisis far advanced, and, if unmixed with froth, usually involves both lungs."*

In the earliest stage of the disease, as we have just remarked, the cough is either quite dry, or attended by a mere frothy and colorless fluid. This, on the approach of the second stage, gradually changes into the opaque or greenish sputum, intermixed with small lines or fine streaks of a yellowish color. At this period also the expectoration is sometimes intermixed with small specks of a dead white or slightly yellow color, varying from the size of a pin's head to that of a grain of rice, and which have been compared by some writers to that grain when boiled.

After the complete evacuation of a tubercular cavity, the expectoration assumes various forms of purulence; but it frequently presents a particular character, which is almost pathognomonic of phthisis. The expectoration to which I allude consists of a series of globular masses, *flocculenti*, of a white color, with ragged edges, having very much the appearance of little balls of cotton or wool. These commonly, but not always, sink in water. At other times, where these globular masses are observed, and also where they have not appeared, the expectoration presents the common characters of the pus of an abscess, constituting a uniform, smooth, coherent or diffused mass, of a greenish or rather greyish color, with an occasional streak of red; and shortly before the final termination of the disease it is often surrounded by a pinkish halo; and indeed death always follows in a very few days when they assume this color.

As to the quantity of expectoration, very much will depend upon the stage of the disease, and the progress it has made. In the first stage it is absent or quite scanty; but as the disorder advances it becomes more copious. If the cavities are small, and the bronchial membrane and glands not much affected, it will be scanty; but if the cavities are large, and the bronchial mucous membrane much affected, it will be more abundant. When it is very copious it becomes a very serious drain upon the system, and soon exhausts the vital forces, and no doubt tends greatly to keep up that state of the system upon which the disease depends.

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* Thompson's Lectures on Consumption, page 64.

The following table, compiled from Dr. Thompson's Lecture on the Expectoration, shows the age of the patient, the daily quantity and character of the sputum, and stage of the disorder in nineteen cases of confirmed phthisis:

No.	Age.	Quantity daily.	Character.	Stage.
1	29	4 ounces.	Purulent, frothy.	2
2	46	4 "	Mucous, frothy.	1
3	46	4 "	Mucous, frothy.	1
4	32	10 drachms.	Purulent.	3
5	17	2 "	Purulent.	2
6	33	1½ ounce.	Muco-purulent.	2
7	16	None.	None	3
8	18	None.	None.	1
9	21	3 drachms.	Purulent.	3
10	21	½ ounce.	Mucous, frothy.	1
11	29	1 "	Frothy	1
12	25	4 ounces.	Muco-purulent.	2
13	27	4 "	Muco purulent.	3
14	13	4 "	Flocculent.	3
15	18	1½ drachms	Mucous	1
16	29	1½ ounce	Frothy.	1
17	29	2 ounces.	Purulent.	3
18	20	None.	None	3
19	34	3 ounces.	Purulent.	3

By the above table it will be seen that it is chiefly in the third stage of phthisis that purulent matter is expectorated, and this kind of sputum is regarded by most physicians as highly indicative of vomica. Hence it has always been made a very nice point in medical diagnosis to distinguish between mucous and purulent expectoration. The records of medicine abound in pus tests, which at the present time are of little value, except as showing the slender foundation upon which they were based. They were formed for the most part on the chemical relation of pus corpuscles towards various reagents. But the microscope has rendered all these chemical tests superfluous. It enables us not only to distinguish pus from mucus, broken epithelium, blood, etc. but likewise to determine the amount of these different constituents which chemical analysis has never succeeded in doing.

II—PHYSICAL AND MICROSCOPICAL CHARACTER OF PUS AND MUCUS

Pus, when pure, appears to the naked eye as a creamy, thick and homogeneous fluid, communicating an unctuous feeling when rubbed between the fingers; is of a yellowish tint, sweetish or insipid to the taste; and, while warm, gives off a peculiar, mawkish smell. Its specific gravity is 1.030 to 1.033. If allowed to stand sometime in a tall, narrow glass vessel, the fluid separates into a thick sediment, more or less abundant, and a supernatant serum. This, according to Vogel, is identical with the serum of the blood, containing much albumen, extractive saline matter and fat. The reaction is alkaline, but it readily becomes acid, from the generation of an acid which is commonly supposed to be lactic. In some cases it is said to have an acid reaction even at the time of its formation.

This sediment consists almost entirely of small organized corpuscles, the well known PUS-GLOBULES. These are of a spherical form, have a well defined contour formed by a distinct homogeneous envelope, including a mass of soft, granulous substance, and a varying number of nuclear corpuscles. They are, in well-formed pus globules, for the most part concealed by the surrounding substance; but in the younger cells of healthy pus, and in all those of pus of an inferior kind, they are very perceptible. Occasionally a single nucleus exists, but more commonly it is made up of two, three, or more granules.

The single nuclei are always the largest, and indicate the most perfect kind of development. The more numerous the nuclear corpuscles the less perfect the development. The nucleus is generally seated on the envelope. Its diameter is about 1-6000th of an inch, that of the entire globule about 1-3000th. Single as well as compound nuclei are seen floating in the serum of pus, but they are not numerous. There is generally a small quantity of diffused granular matter mingled with pus globules. This is more abundant in pus of a low temperament. It must not, however, be confounded with the elementary granules, which are originally discrete, and consequently, grouping together, constitute the nuclei.

The formation of the pus globules does not appear to take place in one uniform manner. The nucleus is generally stated to be formed by the grouping together of the granules, which appear in a fluid blastema. Around this there may be formed, first, the envelope, closely embracing the composite mass, so as only to be brought in view by the endosmotic action of water, or a granulous deposit formed around the nucleus, which afterward becomes limited and enclosed by a cell wall.

Mucus may be looked upon as consisting, like pus, of a fluid, *liquor muci*, and *corpuscles*. The liquor muci, as we find it in the secretions of a membrane which has been subject to moderate irritation, is a transparent, tenacious fluid, of alkaline reaction, and more or less saline in taste. The addition of acetic acid, or any other weak acid, produces a kind of coagulation, and the formation of a granular precipitate, which is the MUCINE, the principal constituent of the fluid. This is held in solution by an alkali, and consequently falls when the latter is taken up by an acid. Not much is known of this substance, except that it is a protean compound.

The proper corpuscles of mucus are said, by some writers, to be identical with those of pus; but they are not, except in specimens of a very morbid character. Healthy mucus, as it is seen under the microscope, is composed of epithelial cells—flat, irregular, five-sided, and with central nucleus; with numerous granular masses, and a few spherical bodies, very much like pus-corpuscles, excepting that they contain much fewer oil globules, and these are suspended in a viscid, ductile fluid. Under inflammation there is an increased exudation of albuminous liquids; the epithelium cells are, perhaps, shed more quickly before they have been flattened out; the quantity of globules is increased, and they acquire a character which resembles very much the pus-cells, but are easily distinguished from them by their irregular form.

As to the origin of pus and mucus, pathologists all agree in the opinion that they are both exudations, but the one is poured out directly from the blood-vessels, as an albumino-fibrous blastema, in which special corpuscles (the pus-cells) are formed; the other transudes not only through the capillary walls, but through the basement membrane of mucous surfaces, with more or less of the attached epithelium, and in so doing experiences a peculiar modification, which remains impressed upon it, while the corpuscles, mingled with it, are the natural cell-growth of the surface, or such as form naturally in blastemata, that are destined to become effete.*

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* See Vogel's Pathological Anatomy, American edition, page 135.

III.—Microscopical Characteristics of the Sputum in the First Stage of Pulmonary Tuberculosis.

The chief microscopical characteristic of tubercular sputum, in the first stage of the disease, is the WITHERED PUS-CELL.* When they are present in the expectoration, we may conclude with the greatest certainty the commencement of tubercular formations in the lungs. As a general thing they are much smaller than the common pus-cell described under the last head. Under a magnifying power of 450 diameters, their nuclei look shriveled, and the cell-wall shrunken, and not very clearly defined in outline.

In simple bronchitis or pneumonia I have never yet found these withered pus-cells in the sputum. In pneumonia they always assume the appearance of the healthy pus-cell. and it is only when a portion of the lung loses its vitality, or becomes gangrenous, that we see them. The grade of inflammation must be very destructive, and the patient's vital powers very feeble, if they are found at all in the expectoration. In bronchitis I never saw them but once, and this was in an old lady of very feeble health; she had suffered long with the disease, and I have not the least doubt, if an examination of the chest had been instituted after death, tubercular disorganization would have been found associated with the bronchial, although there was no evidence of the kind during life from either percussion or auscultation.

Permit me just here to relate a case wherein I was very much assisted in my diagnosis by a knowledge of this characteristic of the sputum as revealed by the use of the microscope, and it is only a type of several that have since fallen under my observation:

May 2, 1857.—Mrs. A., aged 27, called this morning at my office for advice. Has been married five years. and has had two children. Her temperament is nervo-sanguineous. Hight five feet six inches, and weighs 125 lbs. Has always had good health until four weeks since. when she took cold and was confined to the house for five days: since then she has been suffering from an annoying cough, accompanied by considerable expectoration. Pulse 85 in the sitting posture; respiration 18. Mouth and throat healthy. Thompson's gingival margin not present upon the gums. No fever; appetite good; bowels regular; menses regular and abundant. Rests well at night with the exception of occasional spells of coughing. Complains of weakness on rising in the morning, but is able to attend to her usual household duties.

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* These are the "gagged cells" so well described by Dr. Hill in his excellent work on Thoracic Consumption.

Her general symptoms do not indicate any serious organic disease; there is no apparent emaciation, and her mind is hopeful. Her chest is full and capacious, and the expansion of the two sides is equal. On percussion no dullness is elicited, and auscultation reveals nothing abnormal in the lungs; the respiratory murmurs are distinct and clear, and no increase of the vocal resonance. Along the track of the upper bronchi there is slight vibration, accompanied with mucous rhonchi. From these physical signs the disease was set down as simple bronchitis, and she was ordered to use croton oil as a counter irritant to the chest, and take a teaspoonful of the following three times a day, about an hour before each meal:

℞	Morphia, sulph.	gr. i	
	Sp. nit. dulc.	f ʒss	
	Syrup scillæ comp.	f ℥iss	M

May 12. Patient called again this morning. Cough no better. Complains of being weaker, and does not rest so well at night. Percussion and auscultation elicited nothing new. She was directed to continue treatment, and forward all matter expectorated during the next twenty-four hours.

May 14. Received matter as directed above. Quantity, by measurement in graduating glass, 3½ ounces. In appearence it was muco-purulent, slightly viscid and frothy; in color a faint yellow. When examined with the microscope it exhibited the ordinary products of muco-purulent matter, interspersed with a number of withered pus corpuscles and shriveled nuclei, without scarcely a vestige of a cell wall.

From this appearance of the sputum we were led to change our views of her case. The bronchial disorder was evidently complicated with tuberculosis. She was, therefore, placed upon the use of iodide of potassium and cod-liver oil, with a generous diet. Under this treatment she gradually improved, and by the first of July had regained her usual health. I examined the expectoration frequently during the time she was under my care, and found that just in proportion as she gained strength, and the cough became better, these withered pus-corpuscles were less numerous, until not one was to be seen. When they were no longer to be discovered with the microscope, the cough and sputum soon disappeared.

April 1, 1858. Called this day to see Mrs. A. She informed me that she had enjoyed good health during the winter. About the first of March she took cold, and has been coughing and expectorating very freely ever since. The symptoms differ but little from those described on the second of May, 1857. The sputum exhibited the same microscopical appearance, only the withered pus-cells were more numerous. Iodide of potassium and cod-liver oil were prescribed, as on the former attack, and attended with the same beneficial effects.

Her health continued good until the first of March, 1860, when it commenced gradually to decline. Her disorder now assumed a more decided tubercular character. No therapeutical measures appeared to have any control over it, and in six months terminated her life. Her malady was unquestionably tubercular from the beginning, although the general symptoms and physical signs were not pronounced.

This case may be regarded as an exception to those commonly met with in practice, where, from the absence of the general symptoms and signs, the existence of tubercular disease could not have been made out; but, by the aid of the microscope, we had at least a probable clue to her difficulty.

But some critical reader may say that these withered pus cells cannot be characteristic of tubercular disease, because they are frequently exuded from suppurating cavities in other parts of the body. Admitting this, which is a fact, yet it does not invalidate the importance of our position, that their appearance in the sputum is strong presumptive evidence of tubercular disease in the lungs.

Perhaps it would not always be safe to say that the lungs are free from tubercular disease so long as there are no withered pus-cells in the sputum. But I will venture the assertion, without the fear of contradiction, that they will very seldom be found in the expectoration of any other disorder of the lungs or bronchia; and we may almost always infer the existence of tubercular deposits when they are found in the sputum; and their disappearance under treatment is a good omen. I could cite several cases from my note book corroborative of these assertions, but as I wish to present you with a synopsis of Dr. T. Thompson's interesting cases, illustrating the value of the microscope as a means of diagnosis in phthisis, in the other stages of the disorder, it would extend this chapter far beyond the prescribed limits.

IV.—DR. THOMPSON'S CASES, DEMONSTRATING THE TRUE MICROSCOPICAL INDICATIONS OF TUBERCULAR SPUTUM.

At the time of the delivery of his lectures on pulmonary consumption, in 1851, Dr. Thompson had paid but little attention to the use of the microscope as a means of diagnosis; and from a very superficial examination of the subject, he expressed the opinion that very little could be expected from it as an instrumentality in determining the existence of phthisis by an examination of the sputum. But fortunately, when he was about to abandon the subject, he had an interview with Dr. Andrew Clark, the distinguished microscopist, who readily demonstrated to him its true character under this wonderful instrument. And a short time before his death, Dr. Thompson read a very interesting paper before the Harveian Society, renouncing his former views, explaining the true nature of the tubercular corpuscles, and illustrating them by several accurate and beautiful diagrams.

In this paper the doctor has shown very conclusively that the sputum of phthisical patients contains materials corresponding in appearance with the elements present in the air passages, and that before any amount of disease can be detected, either by the general symptoms or physical signs, there will not be found wanting the withered cells and shriveled nuclei. He also maintains that when the sputum contains, in addition to the withered cells, isolated masses of moleculo-granular matter, fat, blood corpuscles, with numerous aveolar meshes, we may conclude that there is pulmonary disorganization.

In confirmation of these views, Dr. T. presents the history of several cases, a brief description of which cannot fail to be interesting to every reader who is desirous of adding to his knowledge of the natural history of this dreaded malady.

The first case which he presents is that of a man, aged sixty-three, who, after an attack of pleurisy in the left side, did not regain his usual health. Dull percussion and prolonged expiratory murmur over a small portion of the right apex, were the only important auscultatory signs; but the expectoration, under the microscope, was found to contain withered cells, blood corpuscles, moleculo-granular matter, and numerous aveolar meshes, which are conclusive signs of phthisis. More decided symptoms appeared, and he fell a victim to the disease in a few months.

The second case was that of a lady, aged thirty-nine. The first sickness of any severity that she suffered was during the winter of 1855, and was supposed to depend on some gastric difficulty, the precise nature of which could not be accurately determined. The persistency of the disorder and the progressive emaciation led to an exploration of the chest. Some dullness was elicited on percussion, and an increased vocal thrill was observed near the sternal end of the second intercostal space on the right side.

The expectoration was carefully examined under the microscope, and was found to contain shriveled cells, lung tissue, and isolated masses of granules. She was put under the use of cod-liver oil, and hygienic treatment of a soothing kind was instituted, and there was a marked improvement in her health. But early in the year 1856 the expectoration became more copious; dullness on percussion was more extensively obvious; near the inferior angle of the scapula clicking was audible, shortly followed by cavernous breathing, and other grave symptoms of pulmonary tuberculosis. She died in March.

In this case, almost from the very first, we find the principal signs of the disease in the sputum. Although dullness and increased vocal thrill were observed, with cough and emaciation, yet they did not point out the nature of the malady, for these signs are sometimes present in bronchitis and pneumonia, particularly when these disorders assume a chronic form. The microscopical examination of the sputum at once gave a direct clue to a correct diagnosis of the case. This is fully sustained by a third case, which Dr. T. presents in contrast to this.

A woman, aged thirty-eight, had precisely the same physical signs; but the occasional slight cloudy expectoration, from time to time examined by the microscope, exhibited ciliary cells, some with long tails, probably tracheal; some in masses, as though from follicles; but there were no tubercular elements. In harmony with the encouraging testimony thus afforded by the microscope, the general symptoms continued favorable, and have, during a period of five years, notwithstanding an accomplished auscultator had previously pronounced the most unfavorable prognosis.

The following case is given by Dr. Thompson to show that a microscopical examination of the sputum is useful in confirming doubtful signs: Mr. ——, aged fifty, in the winter of 1854, had a cough, copious expectoration, hurried breathing, and some symptoms of hectic. The left lung had extensive consolidations in consequence of pneumonia ten years previously. Over a small space, near the lower angle of the left scapula, a sound could be heard, which it was difficult to determine whether the correct designation were sub-crepitation or clicking.

A portion of the expectoration was sent to Dr. Clark for microscopical examination. The doctor reported that it contained shriveled cells; large cells with shriveled nuclei, and some earthy matter. And without having had a previous history of the case, he gave the diagnosis of "slight tubercular deposits tending to restoration," a diagnosis which was confirmed by the subsequent history of the case. The conversion of tubercles into cretacarious masses, is generally regarded as a curative process. and when found in the expectoration it is looked upon as a favorable sign. The case, at least, is still considered hopeful.

In the summer of 1854, Dr. Thompson was called to see Mr. ——, aged twenty-two. On examination, there was dullness on percussion, and a murmur over the left pulmonary artery, but no crackle or clicking; the expectoration, however, exhibited lung tissue, tubercular corpuscles, and blood disks. He took cod-liver oil freely, at one period, to the extent of a pint and a half in a week, and had iduretted neat's foot oil, (a grain to the ounce,) rubbed into the chest. After a time the expectoration became chiefly bronchial, and free from lung tissue. After spending the winter in Madeira, he returned in the latter part of spring, quite improved in health.

The Dr. introduces this case to prove that the microscope affords us evidence of amelioration of the pulmonary disorder, and furnishes the medical attendant such indications as will lead him to persevere in the use of such means as will have a tendency to counteract the diathesis and repair the local lesion. Nothing, in our judgment, is more conclusive of amendment, than the disappearence of the withered cells, the shriveled nuclei and lung tissue from the sputum of a phthisical patient.

The microscope, also, furnishes very important evidence of the rapidity of the pulmonary disorganization, and its fatal termination. Dr. Thompson illustrates this by a case, where the individual had been in a decline for two years, but whose friends did not fully realize the danger. Some expectoration sent to him for examination, contained blood, copious corpuscles, and numerous large meshes of pulmonary tissue, perfectly retaining their form and elasticity. A very unfavorable prognosis was given, which was verified by the death of the patient in a few days.

In this paper, Dr. Thompson gives it as his decided opinion, that the microscopical inspection of the sputum, at a very early period of pulmonary tuberculosis, furnishes knowledge in relation to the malady, that is not otherwise attainable. That the microscopical examination and study of the sputum opens up a very important chapter in the progress of medical science, and that it should not be discarded by those who wish to become proficient in diagnosticating the various disorders of the chest.

V.—TESTIMONY OF DRS. BENNETT AND CLARK ON THE VALUE OF THE MICROSCOPE AS A MEANS OF DIAGNOSIS IN PHTHISIS.

Dr. Hughes Bennett, of Edinburgh, although at first exceedingly skeptical as to the value of a microscopical examination of the sputum as a means of diagnosis in chest diseases, has recently added his testimony as to its importance, and concurs, with Dr. Thompson, in recommending it as a very useful means of diagnosis in all doubtful cases of phthisis.

Dr. Andrew Clark, of London, has studied the microscopical character of the sputum carefully, and has published in the *British Medical Journal*, the most scientific article on this subject that I am acquainted with. and he gives it as his firm conviction, "that the examination of the sputum is useful at all periods of the disease, as being the only certain means of detecting the disintregation of the lungs and the increase of the disease."

With such testimony in favor of the value of a microscopical examination of the sputum as a means of diagnosis in phthisis, it makes us feel a little combative, when we hear individuals affirm, "that there is nothing found in the sputum of phthisical patients, which is conclusive of the existence of the affection, and that those who claim that there is, are laboring under a delusion." Persons entertaining such views have never made this subject one of special observation and study. Hence their opinions are not entitled to much confidence—time will triumphantly explode them.

The introduction of the microscope is a new power in the empire of medical diagnosis. And, like all intruders, it will encounter hostility and bitter opposition; and no strange thing has happened to it when it is condemned before its merits have been fairly examined and fully tested, for the very same thing has occurred to nearly every discovery that adorns the temple of science. Take, for example, the art of auscultation. For how many years did its advocates encounter the stormy waves of opposition? how were they denounced as pretenders by those who stood high in the profession? But now its utility is universally admitted; and there is not a man in the profession, who has any regard for his reputation, that will stand up and seriously controvert its value.

But opposition is not without its use, either in science or morals. Its influence is frequently beneficial in causing more thorough and accurate investigation to be made, in order to furnish stronger evidence in proof of any alleged discovery or improvement. The nature of the principles involved become better understood, and their limits more clearly defined and definitely settled. Another beneficial result is, that it tends to prevent too hasty improvements or changes in practice, which would otherwise occur, as growing out of new discoveries. As a general thing, such transitions as have a tendency to produce a radical change, either in society or science, to be useful must be GRADUAL. The understanding must be thoroughly enlightened, all the intricate principles connected with the subject must be unfolded, and, when submitted to the analysis of reason and judgment, they illumine the mind, and the murky clouds of error flee before the brilliant light of science.

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OLD AGE.—John Adams, on being asked by Mr. Webster how he was, replied, "I am the resident of a delapidated tenement, and the landlord refuses to make any repairs."

CHRONIC CATARRH OF THE UTERUS, WITH ULCERATION OF THE OS UTERI.

By G. Kaiser, M. D., of Indianapolis, Indiana.

The great variety of treatment instituted for the relief and cure of catarrh and ulceration of the uterus is evidence of the difficulty experienced in the management of this affection. Few questions in the department of obstetric medicine have excited in late years more controversy, or called forth a greater variety of conflicting opinions, than that involving catarrhal ulceration of the os uteri. True, it has been affirmed of many remedies, such as tonics, astringents, demulcents, caustics, etc. that they have materially controlled the course and duration of the disease, but so far it is not definitely known that any remedy exercises a controlling influence over any of the phenomena of the disease.

Uterine catarrh is caused by direct irritation of the uterus, and it is evident that any noxious influence, acting on the uterus, when in a state of congestion, will prove more injurious than at other times. The uterus is directly irritated by too frequent and energetic coitus, by masturbation, irritating injections, cold pessaries, childbirth, menstrual irregularities, abortion, instrumental delivery, etc. Among the general and constitutional causes may be mentioned plethora, and its opposite, dilapidated health.

The term catarrh of the uterus, which has been described under a variety of names, such as leucorrhea, fluor albus, fleurs blandus, whites, female weakness, fluor muliebris, etc. has not only given rise to much confusion, but has led to very erroneous practice.

According to Drs. Frank and Reclam, the seat of leucorrhea may be divided into uterine and vaginal. In the former the secretion, whatever may be its nature, comes from the uterus; in the latter, from the vagina; and it is of great importance in practice to distinguish between the discharge which proceeds from the vagina and that which is derived directly from the uterus. When the secretion proceeds from the uterus it is thick, gelatinous, adheres to the finger, and exhibits, under the microscope, numerous mucous globules; on the contrary, the vaginal secretion is more opaque and fluid, white except during menstrual flow, exhibits under the microscope a quantity of epithelial cells, and the mucous membrane of the vagina feels sandy to the touch.

For the examination of this interesting subject the speculum and the trochar have afforded ample opportunity, and it is unfortunate that, with these opportunities, such ignorance should still prevail regarding the varied nature of this disease, and its rational treatment. I will now illustrate a case of chronic catarrh of the uterus, with ulceration of the os.

In the latter part of December 1870, I was called to attend upon Mrs. J. D. S., aged 29 years, married and the mother of two children, the youngest about five years old. Mrs. S. stated that she had been in bad health since the birth of her second child, which she attributed to the last of her labor pains with this child, which were unusually severe and protracted; that she was now in her fifth month of pregnancy, and complained of pain in her head, back and hips, with shooting and throbbing pains through the pelvis; had discharge from the vagina which stained her clothes, and was at times slightly mixed with blood; had very frequent nervous hysteric spells, impaired digestion, and had been confined to her bed for nearly twelve months. She also complained of pains resembling labor pains; and that she had had medical attendance for nearly three years without deriving any relief. With this view I made a vaginal examination, and detected the following, viz., ulceration of the os uteri, with muco-purulent discharges, hyperæsthesis of the portio-vaginalis, which was swollen, hypertrophied, and of a dark red color. The introduction of the speculum caused her great pain, and brought on her a nervous hysterical spell. Her nutritive functions were deranged. Her urine contained a deposit of lithates. Her bowels were in general regular, but her general condition extremely nervous and debilitated.

Having before me a great variety of complicated symptoms, I directed my attention and treatment mainly to the uterus, which I placed as the seat of the disease, taking in consideration her nervous system.

The womb is supplied with nerves by the two great divisions of the nervous system, viz., the cerebro-spinal axis and the trisplanchic nerves. The first preside over animal life, whilst the second are essential to organic existence. The pain in the back and head, the result of uterine disease, is conveyed through the cerebro-spinal axis, while the organic derangements, such as are observed to occur in the stomach, heart and digestive organs generally, are due to the action of the ganglionic department. The feature of lithate deposit in the urine is one of the evidences of impaired digestion.

Under the circumstances the following was my treatment:—Ordered the vagina to be well cleansed morning and evening with an infusion of chamomile flowers, milk-warm, by means of a Davidson syringe, and to be continued until further orders. Also—

℞ Potass. bromid. ℥ss
Chloral hydratis, ʒi
Syrup et aqua menth. pip. aa ℥iii

S. One desert spoonful morning and evening.

℞ Quin. sulph ʒss
Massæ pilul. ʒss
Ferri carbon ʒss
Ext. gentian ʒi
M Ft pill No. xxx

S. One pill three times a day.

January 12th. Discharge per vaginam only slightly reduced; exploration with the finger still produces great pain it the portio-vaginalis; general condition slightly better. Ordered the vagina to be syringed with infusion of belladonna, half a pint with one tablespoonful aqua laurocerasor, morning and evening: the last pills to be repeated; and the following powders—

℞ Pulv. castorei ʒi
Pulv. rad. valerian ʒi
Sacch. lactis ʒij Mt. pulves lx

S. One powder three times a day.

January 28th. Found patient much improved; the tenderness in the vagina has disappeared.

February 6th. Made a painless vaginal examination with the speculum. The os has nearly a normal appearance, with the exception of a small ulcerated spot, about a quarter of an inch in diameter, at the anterior median line of the os, to which I applied slightly and gently actual cautery. Ordered the last injection and medicine to be continued.

March 12th. Discharged patient well. The ulcers as above described were entirely healed; no discharge of any consequence from the vagina. Patient has gained so much in strength that she is walking all over the house.

April 26th, ten o'clock A. M. I delivered her of a large, healthy female child, of 11¼ lb in weight. There was adhesion of the placenta to the fundus uteri, which I removed with little trouble. The day following the delivery she was taken with fever, which disappeared under little medication, and I have the satisfaction of saying that she is now fully recovered, and able to attend to her household duties herself, without the least inconvenience or nervousness whatever.

In the whole course of my medical study and practice I do not know of any case that has given me more personal satisfaction than the undoubted radical cure of this patient. The points here given are only a synopsis of the general complaints; it would take many pages to enumerate them all. I attribute my main success in restoring this patient to perfect health to her strict observance of my directions, and especially to the thorough cleansing of the affected parts by means of the syringe, thereby stimulating the parts to a healthy and restorative action. In conclusion, I will state that Mrs. S. had never before used, neither had she ever been advised to use, a vaginal syringe.

CASE OF (so called) BLOOD POISONING: Arrest of Repair by Retention of Results of Tissue Decay; Loss of Molecular Forms of Structures of Kidneys.

By Z. C. McElroy, of Zanesville, Ohio.

Reported to Muskingum County (Ohio) Medical Society, October Session, 1871.

September 5, 1871, 3½ o'clock, P. M. Mrs. I. B. A., aged 53, a lady well cared for in every respect. Is stout and fleshy, though of small stature. Became very cold—had a chill about noon—is still very cold. Has a violent headache, and aches all over, and is sick at stomach; is somewhat cheerful withal, and thinks she does not want a doctor; was very much opposed to my being sent for, as she thought I would give her something to make her sick. Has been preparing all day to go to a neighboring town with her husband and son, to place the latter in school. Thought I had better go home, as she was determined to take the trip, and would not take anything that would in any way prevent it. I remarked to her that perhaps it would be better for me to see whether I could not help her to go; and that if she would permit me, I would really try to get her in such a condition that it would be safe for her to go. Besides, I really wanted her to go. Placing the thermometer under her arm, to my surprise it settled at a fraction short of 104. She had a peculiarity about the distribution of her radial arteries that made it somewhat difficult to find them, more especially at one of her wrists. Her skin was hot, pungently so to my hand, and dry. Her face was peculiar in its expression. At the rate of waste of her structure, shown by the thermometer, it was clear to me that the material of her structure, on its downward and outward career, was accumulating rapidly, and its retention would soon be announced by some other grave symptoms. I determined to flood her system with hot water, and as I had done so before in the family, she understood it and objected. She said it hurt her so much to pass water, that she had avoided for some time past the eating of watermelon and drinking any unnecessary fluid. Her objections strengthened my purpose to get as much water into her as I could. I told her that her water was so strong it could hardly fail to hurt her; that the hot water, by diluting it would enable her to pass it with less pain. That the structure of her bladder and perhaps other parts of the urinary apparatus, were wasting faster than they were repairing; and that, with her high temperature, the rate of waste was certain to be greater, and she would suffer very quickly if she did not pass water in greater amount. Hot water having been brought into her room, I filled a goblet and gave it to her. With many hesitations she finally drank it. It was filled several times until she drank perhaps two pints. About one half of it was returned by emesis. I put a wine-glass full acid solution sulphate magnesia into the goblet—with sulphate of iron added to it since I reported the formula to the society nearly a year since*—filled it with hot water, which she drank, and laid down. My concern in regard to her was much increased by her failing to get relief from her headache. Her skin was not moistened any by the proceedings. Requesting her to drink what she could of a solution chlorate potassa—tea-spoonful to a pint of water—I returned home. But each hour between that and my next visit my anxiety in regard to her condition increased.

Seven o'clock P. M. Is not so chilly as she was at last visit, though she is still somewhat so; and though the aching all over her is less, it is still present. Temperature 105. Bowels have commenced discharging very fetid water; so fetid as to make her daughter feel sick. Is still sick at stomach. If her bowels fail to be fully evacuated, to have more acid solution of sulphate and to continue solution chlorate potassa during the night.

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* Cincinnati MEDICAL REPERTORY January, 1870.

Sept. 6, 8 o'clock A. M. Has not slept much, though she thinks she is better this morning. Bowels have fairly moved. Has passed water more freely and with less distress than usual for some time past. Still sick at stomach and has some head ache. The temperature has dropped down to 99½.

As there is nothing immediately urgent in the condition of my patient, I requested that her personal clothing should be changed as well as her bed and bedding, and her person washed all over with soap and water. To have for her breakfast boiled bread and milk, and to continue chlorate potassa solution.

11½ o'clock A. M. Temperature has run up to 102. Head still aches, feels chilly, and is sick at stomach. Her skin, notwithstanding she feels chilly, is to my touch hot and dry. Bowels have not moved since last visit, nor has she passed water. Her person has been washed, clothing and bedding changed as requested. She is to have bread and milk for dinner made tasty with pepper and salt, and continue the solution of chlorate potassa, of which, however, she takes but little.

3½ o'clock P. M. Head still aches; still sick at stomach; temperature runs up to 104½, with respiration 24, and pulse only 100. Was so sick a while since that she took some tepid water and threw up; has felt better since, though her stomach is still sick.

It was now evident to me that all repair to her system was arrested as evidenced by the continued sick stomach, and her utter inability to take care of the simplest food. She had taken some bread and milk, as requested, but had to take water and throw it up again. She had lost all power to assimilate food. As the only indication now was to take care of the results of her own decay, which were forming very rapidly, as shown by the temperature, she is to continue chlorate solution only; and take all the water she can drink to facilitate the exit of interstitial decay in her tissues. Has not passed water since morning; she is to be placed on vessel and asked to pass it.

8 o'clock, P. M. Stomach still sick; head aches a good deal;

skin hot and dry; bowels have moved three or four times, but in all only about a teacupful; has passed considerable water. Temperature 105. Respiration 36.. Pulse 110. What passes her bowels is much less offensive and very naturally soft in consistence.

My patient is in a tornado of motion in her structures and it seems very probable some of them may lose their molecular forms. This will most likely be in the kidneys, as they are the first to give way with such high temperature from excessively rapid molecular changes. My anxiety deepens each visit for the fate of my patient and personal friend. The rate of the pulse and breathing is not in keeping with the excessive temperature. The marked feature of her case is that she is going down evenly. No perceptible failure of any function more than another except assimilation. At this rate of motion my duty is clearly limited to taking care that exit is given to the results of her own decay. Therefore if she has no further motion of bowels before midnight, to have a wine-glassful acid solution of saline sulphates, and continue chlorate potassa solution, and drink all the water she can. No food of any kind while temperature remains so high. I left my patient with many misgivings as to her situation: it was evidently very critical.

September 7, seven o'clock, A. M. Has had a bad night: has been up on vessel several times, and passed in all less than a pint: very little urine if any. Temperature 104; respiration 36; shallow and incomplete. Is sodden in color; blood very poorly decarbonized. Has headache; and stomach still sick. My worst fears are being realized. She is not passing from her the effete matter of her own decay, and will perish from uræmia or blood-poisoning, so called. To have flax-seed cataplasm, one-tenth mustard, to cover her chest and abdomen mainly; and I am to return in an hour.

Half-past-eight o'clock A. M. During my absence a consultation had been summoned. Temperature 105; pulse 120; respiration 36. Stomach still sick; headache continues; pupils contracted; eyelids paralyzed. Her daughter thinks she had a chill after my leaving at 7½ o'clock this morning. She wrapped warm blankets round her mother's feet and legs, and had hot irons put to her feet.

The consultation resulted in agreeing to and recommending the following treatment: quinine and paregoric, and green mint and ice, to settle the stomach.

Eleven o'clock A. M. Still sick at stomach; head aches; nails blue, with color as if she were dead; lips sodden; general color very bad; looks as if she were dying. Mouth dirty blue; blood evidently not being decarbonized, or the results of tissue decay separating from it. Is now somewhat stupid. I gave her hot water sufficient to allow her to throw up easy; passed up a couple of pints of dark colored fluid. To have new poultice over chest and stomach. Two grains quinine every two hours, green mint and ice water, made sour by nitric acid, to settle stomach, but no paregoric.

Half-past two o'clock P. M. Still sick at stomach; has the same bad color; flaxseed has reddened up the skin some; has vomited; and has headache. Temperature 104½. Complains of her back paining her a good deal. To have poultice removed, and required to pass water; to be assisted by hot fomentations if her voluntary efforts fail. Quinine pills, two 1 gr. each every two hours; mint and ice.

Haft-past five o'clock P. M. Temperature 102; respiration 36, shallow and incomplete; pulse 100; color desperately bad; looks as if she were already dead. Stomach sich; head aches. Wants warm water to enable her to throw up, and it was given to her. Has not passed any water. She is now to have five grains quinine every two hours, and a teaspoonful equal parts valerianate ammonia and poppy syrup.

Quarter past seven P. M. Consultation. Has had no motion from bowels, and has passed no water. Has been sick at stomach and vomited. Says everything is bitter. Temperature 100; respiration 36; pulse 102. Has had five grains quinine. To have milk punch; quinine gr. x per rectum; valerianate ammonia and poppy syrup, and five grains quinine per mouth every three hours.

September 8, half past two o'clock A. M. Had early in the night ten grains quinine per rectum; five grains per mouth at 9½, 11 and 2 o'clock, and has taken small quantity milk punch three times. Has vomited twice, and sick at stomach all the time; passed nothing from bowels, and no water now for eighteen hours; made efforts on vessel again, but failed. Catheter passed, but no urine in bladder. Temperature 102; respiration

36; pulse 96. To have quinine five grains per mouth and ten grains per rectum at five A. M.

Eight o'clock A. M. Consultation. Temperature at six had sunk down to 97½. Was sick at stomach; had quinine as directed. Skin warm and moist. Temperature at eight o'clock had risen to 101; breathing 36; pulse 96. Lies quite easy, even partially stupid. Skin a desperate color; eyelids paralyzed. To have blister five by seven inches on epigastrium; half a grain of calomel every hour; ammonia as required, with gin and milk.

Half past ten o'clock A. M. Patient becoming comatoze; nothing from bladder; nothing from bowels; has no pain, no sick stomach, no vomiting, no headache.

Patient expired at half past one o'clock P. M. There being nothing in the case not understood, no post mortem asked for or made.

About the last of July patient was engaged in putting up fruit air-tight in her kitchen, where there is a large iron range, and reservoir of hot water. Sending her girl to the cellar for fruit packages, she did not get what she wanted, and went down herself, heated and sweating. Finding things very different from what she expected, she set the girl to work, and assisted in putting things to rights. After an hour or so she became chilled, felt sick, came up stairs, laid down on a lounge, and went to sleep. Woke up stiff and with pain in her bowels; next day had frequent bloody stools, and much pain in her back, and was sore and stiff. I attended her for about a week at that time, the pain and soreness and bloody discharges gradually subsiding, and she renewing her customary duties. I saw her frequently between this sickness and the commencement of her last illness, but she did not complain of being unusually unwell. But the family say she was never well after that; that she never was free from trouble in passing her water, and pain or uneasiness in her back.

It may aid in understanding her case to state that she was a woman who did not make much complaint about anything. Bore pain and inconveniences without repining. Had little or no faith in doctors; thought all medicine was an evil, and therefore the less she or anybody else got of it the better for them.

I think there is little doubt but she was fatally injured by her work in the cellar, and that she was gradually getting worse from that time till her death. And the leading features of her condition from Tuesday afternoon to Friday afternoon, during which she was under professional scrutiny, unmistakably point to her kidneys as the locality of the lesion of structure which more immediately occasioned her death. There was certainly no repair whatever during the last three days, while the rate of waste was at its maximum; and the results of tissue decay were very imperfectly separated from her blood the first day, and not at all during the last two of her life.

I think the result further shows that the treatment from Thursday morning was very far from being correct; and while it may not have hastened, it certainly did nothing to retard her demise. That it was due to the retention of the results of her own decay—that is, blood poisoning or uræmia—there can be no reasonable doubt. The treatment from Thursday morning had for its object the interruption of an expected paroxysm the next day, such as she is supposed to have had very early that morning. But the events succeeding show that ordinary putrefactive decomposition had already certainly commenced in the capillaries of the skin, and was perhaps going on in the substances of the stomach and brain, as evidenced by the persistent sick stomach and headache, which only ceased with the deepening coma preceding death soon after noon on Friday.

Taken as a whole, the case has served to deepen my distrust in the effete theories of life, which lead our minds from actual facts transpiring before our vision and intellect to airy nothings, such as malaria, exhaustion, specific entities of disease, and expected events, predicated on these superstitious assumptions. And it has largely confirmed my trust in the teachings of that instrument of precision—the clinical thermometer—which accurately reveals the mean of motion in matter in the living body, in health and in sickness; and, as by remedial agents we have no other power than to advance, retard, or modify motion in matter, its teachings should take the place of effete theories and superstitious assumptions, which can now do little else than mislead.

THE ADMINISTRATION OF OL. RICINI AND OPIUM WITH WHISKY, AND ITS RESULT.

By I. G. Albers, M. D., of Cincinnati.

On the morning of November 14 I was called to see Miss L. B., aged 20 years. The girl, German by birth, had only been four weeks in this country. I found she had been suffering with intestinal catarrh for three days. The abdomen was somewhat prominent with griping pains, and the evacuations very copious, consisting of some hard scybalæ along with the liquid discharges. I at once directed warm applications to the abdomen, and prescribed—

℞	Ol. ricini	℥i
	Tinct. opii.	gtt xx

M. S. One half to be taken at once, and the other in half an hour, in whisky.

Furthermore—

℞	Acid. tannic.	gr xx
	Sacch. alb.	℈i
	M. ft. pulv.	No. v

S. One to be taken in water every three hours. To commence with these powders eight hours after the last dose of oil has been taken.

Three hours later I was called again in great haste by a relative of the girl, who stated that she was dying, and that the people in the house thought she had been poisoned. On my arrival I counted thirteen women in the sick room—a bad number you know. It was a tenement house. After requesting the ladies to leave the room, except two, I examined my patient, and found the pulse very feeble and quick, the face as white as chalk, and bedewed with perspiration; the extremities cold, the breathing scarcely perceptible, the pupils slightly contracted,* the eyes closed, the whole condition one of stupor. Yet the patient could be aroused so as to open her eyes for a moment.

The one-ounce vial on the table was empty; beside it stood a large whisky tumbler. I learned that the patient had taken the first half of the medicine at eleven o'clock, and the other half according to direction. At all events here was a case of either opium or whisky poisoning. Twenty drops of laudanum could not prove fatal unless there was a cause of idiosyncrasy. So the whisky had to be looked after. An alcoholic odor of the breath was a little perceptible. The nurse told me that the girl, before she fell into that state of stupor, had been very much excited, thrown her arms about, imagined she was in church, talked wildly, etc.; that she, the nurse, had given her a half a tumblerful of whisky each time, and one drink in the morning, because the grocer down stairs said that whisky would cure diarrhea. Then the case was clear, for from four to five ounces of whisky could not be given to a girl in so short a time with impunity. Assuring the friends that the patient's condition was the result of whisky, I proceeded to give an emetic, which however had no immediate effect; ordered cold effusion to the head, and rubbed the hands and feet with flannel. In an hour the comatose condition ceased, the patient became sensible and answered questions readily.

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* It will be observed that contraction of the pupils would be indicative of opium poisoning, while in poisoning by alcohol the pupils are generally dilated.

OF DEGENERATIONS PRODUCED BY ACUTE DISEASES,

And their Consequences from a Clinical point of view.

By M. A. LAVERAN. Translated from the "Archives Generales," by THOMAS C. MINOR, M. D.

[Concluded]

The degeneration of the fibres of the heart has for its first effect the diminution of the contractile energy of this organ; the arteries receive no more than an insufficient quantity of blood at each systole of the ventricles; the pulse becomes frequent, thread-like, depressible, and sometimes irregular. The heart, emptying itself incompletely, the pulmonary circulation is embarrassed—bronchitis, pulmonary œdema, appearing, or increasing in intensity if they exist already; finally, hematosis no longer remains, cyanosis appears, then asphyxia and death.

From thence, if we suspect a commencing alteration of the heart, it is necessary to administer tonics to the patient, and above all digitalis, which is the heart tonic, *par excellence.* Degeneration of the fibres of the heart predispose the patients attacked by it to sudden deaths; but I do not think that the sudden deaths that we observe among convalescents from typhoid, could be explained by the endo-arteritis of the small vessels and consecutive anæmia of the walls of the heart. (Hayem, Researches upon the connection existing between sudden death and the vascular alterations of the heart in typhoid fever. *Archives de Physiologie*, 1869). Of three patients dying suddenly during the course of typhoid fever, I have not observed a single time this alteration of the vessels of the heart, whereas it existed in others which were not terminated by a sudden death.

Sudden death in typhoid fever may be due to an obliteration of the branches of the pulmonary artery by embolic clots (Griesinger), but the cases are rare.

M. G. Dieulafoy (*De la mort subite dans la fleure typhoide. Paris*, 1869). thinks that sudden death in typhoid fever is due to a reflexion of which the point of departure is in the ulcerations of the intestines; he compares it to that which happens in rabbits when the semi-lunar ganglions are crushed (experiments of Brown Sequard).

Ulcerations of the intestines amount to nothing in the production of sudden death. I could very well give the proof of this, but will content myself with this fact: sudden death is observed in convalescence from typhus the same as in that of. typhoid (*Jacquot*, *Du Typhus de l'armee d' Orient. Paris*, 1858), and in the meanwhile, in typhus, the intestinal mucous membrane is intact. The sudden death which so often carrys away those convalescing from typhoid fever is altogether comparable to that which sometimes happens among patients suffering from anæmia and leucocythemia. At the end of typhoid fever, are not patients anæmic and leucocythemic? The patients of whom I speak died of syncope at the moment they arose, sitting in their beds, very often at the time they were upon the night chair, and at other times the syncope came on after violent emotion. I have always found, at the autopsy of these patients, a very remarkable cerebral anæmia; in one case the heart was completely empty of blood. In order to prevent syncope in typhoid fever, it is necessary to nourish the patients early, to keep them in bed for a certain length ot time, and make them avoid as much as possible all kinds of violent moral emotions.

II.—OF DEGENERATIONS OF THE SMALL BLOOD VESSELS IN ACUTE DISEASES AND THE ACCIDENTS WHICH FOLLOW THEREFROM.

In 1867, Hoffman described the fatty degeneration of the small vessels in different organs, those of the kidney and brain in particular, among patients dying from typhoid, (*Virchow's Archiv. t.* xl.)

M. G. Hayem (loco citato) described at great length the alteration of the vessels of the heart in typhoid fever. The walls of the arterioles are, says he, very much thickened, their mouths narrowed or obliterated; the capillary vessels are empty or filled up with globules. Mr. Hayem gives to this alteration of the vessels the name of hyperplastic endo-arteritis. In another memoir, published in 1870, and already cited, Mr. Hayem said he, had likewise noticed endo-arteritis in the vessels adjoining hemorrhagic focuses, and the obliteration of the arterioles (intermuscular hemorrhages of typhoid fever attributed by Rokitansky to the rupture of muscular fibres).

I have determined the granular alterations of the small vessels in a great number of cases of typhoid fever, of variola, of scarlatina; not only the vessels of the heart are attracted by it, but also those of the skin, kidneys, etc. The alteration of the vessels consists in a granular degeneration which, most often, appears not to merit the name of hyperplastic endo-arteritis that Mr. Hayem has given it.

I have cited, in a preceding chapter, the opinion of Mr. Hayem, who attributes to the degeneration of the vessels of the walls of the heart, and to the consecutive anæmia, the sudden death recurring in typhoid fever. I have shown that this was only a predisposing cause the same as alteration of the fibres of the heart.

The blood vessels become granular, breaking easily, and give rise to hemorrhages, of which the seat and extent are very variable. It is, I believe, to this granular alteration of the vascular walls that it is necessary to attribute the hemorrhagic forms of eruptive fevers, much rather than to an alteration of the blood: the observation that follows appears to me to demonstrate this fact.

OBSERVATION III.—L——, soldier of the line, entered l'hospital Saint Martin the 24th of April, 1870.

The 23rd, this patient had been attacked by fever and lumbar pains.

The 24th I found him in the following condition: Skin burning hot, pulse very frequent, face a reddish bronze, the patient complaining of extreme and acute pain in the region of the kidneys;

groaning uneasy in his bed; urine normal; no angina, no eruption on the body. Dieted low, gum water, six wet cups on the lumbar region.

25th. The fever is as high as ever, the eruption of scarlatina commences on the legs; there is no angina.

26th. The eruption has almost disappeared on the face; over the whole body we find large red patches, with a dot more deep. A little angina. The skin is still burning hot; delirium and agitation at night. The urine is not albuminous. In the evening the eruption had paled greatly upon the lower limbs to the level of the groins, and upon the abdomen; it had taken a purple tint. Numerous ecchymotic spots were noticed upon the neck and arms. Agitation, much fever, delirium, dyspnœa. Fresh lotions.

The night of the 26th to the 27th the patient was very uneasy; there is trouble in keeping him in bed. On the 27th, in the morning, abundant hæmaturia. The patient died at 7½ o'clock in the morning.

Autopsy made the 28th of April, at 8 o'clock in the morning. The body is that of a very vigorous man; the skin is covered with ecchymotic spots; sub-conjunctival ecchymosis. In cutting the skin, we find at different points sanguine suffusions in the sub-cutaneous cellular tissue.

HEAD.—The sinuses of the dura mater are gorged with liquid blood; the cerebral substance presents nothing remarkable, no notable injection, no sanguine suffusions.

The laryngeal and tracheal mucous membranes still show traces of an intense injection.

THORAX.—Some old pleural adhesions at different points under the visceral pleura; small ecchymoses; pulmonary obstruction at the base of both lungs; hyperæmia of the bronchial mucous membrane; some of the bronchial ganglions are very much developed.

ABDOMEN—. The large intestine in all its extent presents numerous vascular arborizations and dottings of small ecchymotic spots of a very vivid red color; the small intestine is highly injected at places; no ecchymotic spots; no psoventeric; the mesenteric ganglions are not hypertrophied; the spleen and liver have a normal volume; the kidneys are voluminous; from the exterior, they present nothing remarkable. The left ureter in its whole length, the right at its superior part only, presents a blackish tint. The cups and calyxes of both kidneys contain blood; the walls of the cups are covered with a black fibrinous covering which is only taken off by the scalpel with difficulty; in the cortical substance of the kidney is found a reddish mark; in the tubular substance, small red parallel strias in the tubules. The bladder is filled with black blood; the sub-peritoneal cellular tissue is also the seat of sanguine suffusions.

HISTOLOGICAL EXAMINATION. — A. *Ecchymoses of the skin.*— The sanguine infiltration occupies above all the layers of malpighi; at some points it is stopped very slightly by the papilla of the skin, at other points it has invaded the superficial layers of the skin. The extravasated hematies are in very small number. The small vessels of the skin are very visibly granular in the region of the ecchymoses.

B. *Peri-aortic cellular tissue.*—At the level of the ecchymosis the walls of the small vessels are thickened and granular; most often the vessels are only altered to a part of their extent; there are segments entirely healthy. The extravasated blood globules are very numerous.

C. *Kidneys.*—The epithelium of the tubuli is very granular in the cortical substance; healthy or very nearly so in the tubular substance; the follicles of malpighi are voluminous and congested. A large number of tubuli contain blood characterized by hematies in great numbers. In the calices, we find small blood globules, shriveled, and jagged at the edges. The walls of the calices are infiltrated by a roseate serosity; we find no hematics; the vessels of the bodies have undergone granular degeneration at a large number of points.

D. *Muscles.*—The abdominal muscles, psoas and adductors, have undergone granular degeneration; no enlargements nor vitreous masses. The pectorales and intercostals present the normal striation. A great number of the fibres of the heart are granular. Upon several preparations we distinguish the small vessels of which the walls are thickened, granular.

Everywhere there have been hemorrhages. In this patient I have found a degeneration of the small vessels. Have never been able to see from which ruptured vessel the hemorrhage had taken place; this excludes not only the idea of vascular rupture in order to have ecchymosis of the cellular tissue, but it is more doubtful still if the hæmaturia could be produced following the destruction of the vessels of the kidneys. The bodies of malpighi have been the starting point of the hæmaturia; for, with the tubuli, some could not contain the blood, while others would be filled up to the cul-de-sacs, or introduce themselves into the malpighian bodies; on the other hand, the blood corpuscles would be much less altered in the interior of the tubuli than in the calices and the calyxes. How could it be that so great a number of the vessels of the malpighian bodies could be ruptured at the same time, and their rupture not give rise to the formation of ecchymosis in the renal parenchyma? Is one not led to believe that the walls of the small vessels of the bodies, attacked by granular degeneration, had permitted the transudation of the hematics without being ruptured. We know that the pressure of the blood in the bodies is greater than in the general capillaries; we can easily conceive then the predisposition to hæmaturies that we observe in severe fevers.

The hemorrhages so frequent in acute tuberculosis, described by Rokitansky, Rayer, Rilliet, and Barthez, Charcot, Lendet, Herard aud Cornil, are explained much better by a degeneration of the capillary vessels, than by a dyscrasia such as M. Lendet has invoked without proving.

EN RESUME.—In acute affections it is not rare to observe the granular degeneration of the walls of the small vessels; the vessels so degenerated are broken with the greatest facility. From this results the sub-cutaneous ecchymosis, the sanguine effusions which show themselves in the different parts of the bodies, but chiefly in the cellular tissue and on the surface of mucous membranes. Perhaps the altered capillaries may permit the blood to transude without breaking themselves, which is not possible in the normal state.

III.—OF THE DEGENERATION OF THE KIDNEYS.

It is proved that albuminuria, described in former times as a particular disease, is in reality only a common symptom of a great number of diseases. Albuminuria is observed in particular in a great number of acute diseases; it is almost constant in typhoid fever. I think that this phenomena must be attributed to granular degeneration of the epithelium of the tubuli, much rather than to a dyscrasia, which is nothing less than proved.

This albuminuria never happens in general in the disease which has given rise to it, the renal epithelium repairs itself rapidly; in the meanwhile it is not always so. I have seen albuminurious anasarca come on and gravely complicate a case of typhoid fever; the patient convalesced completely. Following variola I have seen albuminuria persist sometimes a very long time. One of my patients had considerable anasarca following an attack of variola; he only convalesced in two months As regards scarlatina, the fact of consecutive albuminuria is unfortunately not rare; the albuminuria of scarlatina passes at the same time very often into a chronic state, and becomes fully as obstinate as that which depends on Bright's disease.

It is easy to assure ourselves that these albuminurias, from their *debut*, arise from a degeneration of the renal epithelium. It is only necessary to examine under the microscope the urinary deposits and we find granular cylinders owing to the desquamation of the tubuli.

The other parts of the organism, than those we have spoken of up to the present time, do they undergo degenerations in acute diseases? It is possible; it has been said, for example, that the liver undergoes very important alterations; my researches have not carried me into the study of this subject. Are the cerebral cellules altered in grave fevers? It seems to us probable in typhoid fever, for example, or how can the weakening of intelligence and the loss of memory which are so often observed after severe attacks be otherwise explained? But it is necessary at best to say, that this alteration of the nerve cellules is up to the present time a pure hypothesis.

IV.—ETIOLOGY AND PROPHYLAXIS OF THE DEGENERATIONS OBSERVED IN ACUTE DISEASES.

Degenerations of muscles, vessels and kidneys, of which we nave described the dangers in preceding chapters, are found with the same characteristics, except with the same intensity, in a great number of different diseases. It is evidently necessary to search the cause of it in a common characteristic of these different diseases. Now, what is there in common between typhoid fever, variola, measles, scarlatina, acute tuberculosis, erysipelas, tuberculous meningitis, puerperal fever, except the fever? The muscular alteration described in the first chapter is never observed in apyretic diseases. Does it follow then that we err in attributing, with Liebermeister, muscular degenerations only to the elevation of the temperature of the body? I think not. The elevation of the temperature of the body is the principal objective characteristic of the fever. Galen comprehended it in defining fever as "calor præter naturam;" but this definition is very incomplete. One cannot give fever to an animal by raising the temperature of its body. In a subject who has fever there goes on, in the intimacy of the tissues, a very active movement of denutrition. It is to this that Trousseau attributes, with some reason, the alteration of the muscles, in typhoid fever, to a lesion of nutrition. I think in the meanwhile that the elevation of the temperature of the body also plays an important part in the production of the lesions of the muscles and vessels. If it resulted simply from a lesion of nutrition, we would find it in chronic diseases; but it amounts to nothing in them. When in the cadaver we find the granulo-vitreous degeneration of muscles, we may be certain that the temperature of the body was greatly elevated during life. It is in typhoid fever, the continued fever *par excellence*, that the alterations of muscles will be met with the greatest frequency and intensity; in scarlatina where the temperature of the body is raised so rapidly and so high that the muscular lesions are produced with the greatest rapidity, so much so that we can prove the characteristic degenerations in subjects dying in four days, from scarlatina.

Experimental physiology here gives to pathology a precious point. M. El. Bernard, has experimentally demonstrated that heat must be ranked among the poisons of the muscles and of the head, by the side of the *upas antian*, *potassa*, etc. Very ingenious experiments have permitted him to demonstrate that the heat acts primitively neither on the blood nor upon the nerves, but only upon the muscles (Lecons du College de France, annee 1871); is it not natural to suppose that the morbid heat also acted primitively upon the muscular system.

EN RESUME.—I think that the elevation of the temperature of the body is not the only agent in the degeneration of muscles, but that it is one of the conditions: from this practical consequence it is necessary to attach the moderation of the fever in order to prevent these degenerations. This is the one new indication for antipyretics, only it is not necessary to wait in order to administer them until the fever should attain its acme, for then the disease is done may be; it is necessary to give them preventives in some way when the thermometer goes beyond 40 degrees; above all, if this temperature is continued, or if the remissions are weak or nothing. In fact, the temperature of the human body may be elevated greatly without much danger, provided that the elevation of the temperature does not last a long time. It is this which takes place at the beginning of intermittent fever.

SUGGESTIONS RESPECTING THE TREATMENT OF MALARIAL FEVERS.

By A. B. Palmer, M. D., Professor in the Michigan University, Ann Arbor.

In no class of diseases are the effects of treatment so decided and beneficial as in malarial fevers; and in none has the plan of treatment been more improved during modern historical periods. Although in some rare and exceptional cases of pernicious intermittents, their course is so violent and rapid as to extinguish life before, in the ordinary course of management, remedial measures can be brought to bear, yet under proper treatment, as established by modern experience, life is very seldom destroyed by the direct effects of the malarial poison, however abundant and concentrated. Though these forms of disease are much more severe in tropical and semi-tropical regions, yet in the comparatively high latitude of England intermittent fever, even in its ordinary forms, was formally not an uncommon cause of death. It is said that James I., Oliver Cromwell, John Bunyan, John Wesley, and other historical personages, died of malarial fevers; and in the time of Shakespeare it must have been a common cause of death, as he makes one of his most familiar characters, Sir John Falstaff, die of this disease.

The well known death scene in Henry V., in which the great poet of nature, "with one pen-full of ink, gives us what amounts to a whole class lecture, or a dozen pages of an ordinary medical text-book," in describing the physical phenomena of a final dissolution, will be remembered by the admirers of this transcendent genius:

"*Mrs. Quickly*—As ever you came of women, come in quickly to Sir John. Ah, poor heart! he is so shaked of a burning *quotidian-tertian*, that it is most lamentable to behold."

In another scene is added:

"*Mrs Quickly*—'A made a finer end, and went away an it had been any chistom child; 'a parted even just between twelve and one, e'en at turning o' the tide, for after I saw him fumble with the sheets, and play with flowers, and smile upon his fingers' ends, I knew there was but one way; for his nose was sharp as a pen, and a' babbled of green fields.

* * * * * *

"So 'a bade me lay more clothes on his feet; I put my hand into the bed and felt them, and they were cold as any stone; and I then felt to his knees, and so upward and upward, and all was as cold as any stone."

This character, more real to us than most of the persons of history, died, as the i literate Mrs. Quickly expressed herself, of a "quotidian-tertian," certainly of an intermittent fever, either of the quotidian or tertian type; and many at the present time would succumb to ague were it permitted to have its course. But no great poet would, at the present day, make one of his characters die of ague; and we all understand that the change is chiefly due to the discovery by the Jesuits of the efficacy of Peruvian bark, and the preparations which modern chemistry has extracted from it.

Whatever supposition we may entertain as to the form of matter constituting malaria, the cause of periodical fevers, we can hardly fail to look upon the active principles of the bark, and particularly upon quinine, as an *antidote* to that poison, either by acting directly upon it, and thus neutralizing its deleterious powers, or so impressing the system as to render it insusceptible, for the time, to its effects—and considering the various articles with different physiological actions, which are capable of more or less perfectly exerting an anti-malarial influence, it seems most rational to suppose that their effects are produced by acting directly upon the poison. That this is the chief mode of action with regard to quinine in interrupting these fevers, I have very little doubt; though the system is certainly profoundly impressed by the drug, and other important effects are realized than the mere neutralization of the malarial poison.

Doubtless the great thing in treating all forms of malarial disease is the introduction into the system of a sufficient quantity of the antidote to neutralize the poison; and we may then reasonably suppose that the effects will cease—the system sooner or later recovering from its consequences. When this principle is fully kept in mind and faithfully acted upon, success in the treatment of these diseases in all ordinary cases will follow, whatever special methods are pursued; but it is important to determine the quantity necessary for the proper effect, and the best methods of procedure in managing the various cases presenting themselves for treatment.

In examining the works of our different standard authors, most of whom have spent their professional lives in large cities, where malarial diseases seldom or never prevail, much discrepancy will be noticed among those who describe in detail the treatment of those cases.

Dr. Flint, who has had considerable experience in intermittent fevers, states that it is always desirable to arrest the disease as speedily as possible; that there is no need of preparatory treatment; that the preparatory measures heretofore used, viz., mercurial cathartics, emetics and sometimes bleeding, so far from being indicated in intermittent fevers, are, besides delaying the cure, positively injurious. He advises that quinine be administered at once in doses of about five grains, repeated once in two or three hours, until what he calls "cinchonism" is produced, indicated by *tinnitus aurium*, and this effect he regards as in general, "evidence that a sufficient quantity has been administered. For an adult," he proceeds, "five grains may be given at a dose. and repeated once, twice, or thrice, if necessary for the effect just stated. By this method of treatment, in a case of quotidian type, the chances that another paroxysm will or will not occur are about even. In a case of tertian type the chances that another will not occur preponderate. If another paroxysm occur, the same method of treatment is to be repeated."

In these, as well as in subsequent directions for the management of pernicious intermittent fevers, the production of "cinchonism," he seems to regard as the essential thing, and mentions a case which he saw with Prof. T. G. Thomas in 1867, where much "cinchonism" not appearing, 120 grs. of quinine were given in divided doses in 24 hours, when the patient "became completely blind and almost completely deaf," exciting much anxiety, but at the end of eight hours, both the blindness and deafness had disappeared, the patient recovering.

Dr. Aikin in his work on Practice says: "It is useless to attempt the cure of intermittent fever if the sufferer is permitted to remain within the sphere of malarial influences, or even in those geographical latitudes which are said to be peculiarly malarial."

He then proceeds to state the treatment, notwithstanding its uselessness, for ague in warm latitudes, on the authority of Sir Ronald Martin. During the cold stage, ammonia, warm drinks, ether, etc , with external warmth, are to be used. During the hot stage, a full dose of calomel, with James' powder, given at once, and in three hours followed by a brisk cathartic, diluent drinks, with some cooling diuretic. The tartarized antimony with nitrate of potash, is recommended as answering the double purpose of exciting to action the functions of the skin and kidneys. On the following morning the intermission being complete, sulphate of quinia is to be given, (doses not mentioned) once in threee hours. He says: "in simple cases, when removed from the sphere of malarial influence, it may not be necessary to give mercurials more than once or twice, but active purgatives are always beneficial in relieving the full and congested state of the abdomen generally, during the continuance of intermittent fever. There are cases, however, complicated with hepatic and other engorgements, and which continue to recur despite of all means until a few doses of calomel, followed by purgatives, are administered; then quinine, which before failed, will speedily cure the disease." He advises bleeding in cases of local congestions, where the fever is severe. He quotes Dr. Murchison as recommending one large dose of twenty grains of quinine during the sweating stage, no ill effect being produced, only some slight buzzing of the ears, some amount of which he deems necessary, and when it occurs "it is a sign that there is no use of pushing the medicine farther."

The same general plan is advised in remitting cases. Antimonial wine and nitrate of potash are articles often recommended, and the use of calomel and blood-letting are regarded as important in many cases.

Dr. Hartshorne, in his Compendium of the Essentials of Practice, advises, in the treatment of intermittent fever, that the bowels be freely opened, the hot stage palliated by cool drinks and neutral mixtures, and as soon as the sweating stage commences, the "quinia, or cinchonia, or bark in substance may be prescribed."

He advises the quinine in one grain doses every hour. In tertian ague, beginning on the day of the intermission, he directs to repeat the doses until twelve grains are given; the next day, if no chill occur, the patient is to take ten grains, the third day nine; and so diminish daily until six grains are reached. This is to be continued (six grains a day) until a week from the last chill, when ten grains again in one day, always in one grain doses, must be given, when treatment may cease.

In remittent fevers the same general plan is advised—saline cathartics, bleeding sometimes, effervescing mixtures, etc., abating the severity of the fever, and then quinine in grain doses every hour, sometimes in doses of a grain and a half, continuing on for days, as in the intermittent cases. In pernicious cases larger doses are advised.

I have referred to these different authors (and the references migh be much extended) to show the diversity of statement which the student in searching for a guide has to encounter, and for the purpose of comparing these different opinions with those which my experience of thirty years in treating the fevers of the West, have enabled me to form.

As already stated, I regard the cause of these diseases a specific poison, and Sulphate of Quinia as above all others the antidote to that poison; and if a patient be seen at the beginning of the attack, before the secretions are specially deranged, and before any local complications exist, with the alimentary canal comparatively empty, and especially if the portal circulation be not obstructed, no time should be lost before administering the antidote.

The quantity usually necessary to effectually and certainly accomplish the object, is about twenty grains, and that quantity I believe on the whole, to be best given in about four doses, preferably if paroxysms be already established, commencing the administration early in the sweating stage, and giving the whole quantity some time before the next expected paroxysm. Thus administered, in nineteen cases out of twenty, the paroxysms will be promptly broken up; and if the tongue is not much coated, the bowels well open, the eyes not yellow, and the sensations comfortable, no farther treatment will be required. As we commonly see patients with all forms of malarial fever, some time has already elapsed since the attack, and progress has been made with the disease. The spleen and liver are congested, the secretion of bile is diminished, perverted or irregular, the secretions and contents of the stomach and bowels are morbid and often irritating, the blood is already loaded with effete matter, the result of increased waste of tissue and of diminished excretions, the head is painful and congested, and as a rule, a cathartic is indicated as the remedy first in time, though the antidote is first in importance. The best form of cathartic, as a rule, is a mild mercurial powder, say four or five grains of blue mass, with a scruple of calcined magnesia, or bicarbonate of soda, followed in three or four hours by a saline cathartic or laxative, preferably, as most agreeable to the taste, the citrate of magnesia. I am fully persuaded that by such a cathartic the secretions are improved, the alimentary canal is relieved of irritating matters, congestion of the liver and spleen is diminished, effete matter is carried out of the system, the brain and nervous system are relieved, and the stomach is "prepared" the better to receive, retain and absorb the quinine, and this article is more certain to act as an antidote to the malarial poison.

Then, preferably, at the beginning of the sweating stage, or at the period of the abatement of the fever, the quinine should be given as before recommended, in four five-grain doses, repeated sufficiently often to be all taken before another paroxysm or exacerbation would, in the natural course of the disease, occur: and the fever, in almost every case, will be promptly interrupted —the poison antidoted. The disease may return, but for the time being its course is arrested, and in very many cases permanently; and if no farther symptoms are present, no farther treatment will be needed. If symptoms of congested internal organs, deficient secretions, impurity of the blood, or anæmia be present, appropriate remedies should be applied to these or any other morbid conditions. If there be evidence in an apparent tendency to returning paroxysms that the malarial poison has not been sufficiently antidoted, repeat the quinine in a full anti malarial quantity, given in a single day, and the poison will be neutralized.

If the malaria be intense, more quinine may be required, twenty five or thirty grains. If less intense, twelve or fifteen grains, or even less, may suffice; but as twenty grains will do no harm, and may be needed, that quantity should usually be given to an adult. If the stomach is irratable, an appropriate dose of morphine may be added to the first, and perhaps second or third dose of quinine and effervescing drinks, and counter-irritation may be added. The severity of the fever at any time, may be palliated by cold to the head, cool baths, soothing mixtures, etc., etc. Much stress by those who have not learned better by experience, is laid upon the cinchonism, or ringing in the ears, and when this effect of the quinine is produced, it is advised to be discontinued. With some persons a single grain, with many, two or three grains will cause the phenomenon—*but there is no relation between this buzzing and the antidotal or curative effects of the quinine, and it should, therefore, not govern in the administration of the remedy.* It is a matter of very little consequence, will soon pass off, and in those persons where the remedy does not produce this effect, it is quite as effectual in arresting the fever. Where this symptom governs, as Dr. Flint confesses, the chances are about equal, that the fever is not promptly arrested. When twenty grains are given after due "preparation" where it is needed, there is almost absolately no failure.

No one has a right to deny these statements, who has not faithfully tried the plan, and those who have tried, as hundreds of practitioners who have followed this advice can testify, will not deny them.

If quinine is capable of injuring the system, as I believe, under some circumstances it is, it is much more likely to do so when long continued, for a week or more, in doses of from six to ten grains a day, than from twenty or thirty grains, given during a single day. One very serious disadvantage of its long continuance is that the system becemes so accustomed to it that it fails to be absorbed, or at least to produce its usual effect when a fever actually occurs. This was according to the experience of Dr. Livingston, in the intense malaria of Africa. He at first gave his men daily doses of quinine as a prophylactic, but found it not best, as from constant exposure to the poison, new attacks would occur, unless daily fully antidoted by twenty or more grains of the medicine, which could not be long borne; and those who had taken the ordinarily recommended prophylactic doses were less susceptible to its curative influence when the disease recurred. His treatmest settled down to this—when symptoms of an attack occurred, a mercurial cathartic was given, and after its operation, three ten-grain doses of quinine were given, at intervals of three or four hours, when the treatment was ended.

In the replasing cases, my experience has taught me that eliminatives are quite as frequently required as tonics, though the latter, particularly in the form of iron, often combined with grain doses of quinine three times a day, will often be found particularly useful.

There are various other points in the statements of the authors referred to, and respecting the treatment of these diseases, which might profitably occupy our attention, but which the limits of this article exclude. I will, however, add, that irritating and depressing emetics, drastic purging, mercurial saturation, and the various mixtures of antimony and nitrate of potash, often do great mischief, and cannot be too strongly condemned—and that the special complications liable to occur in these fevers, require special measures for their relief.

Suggestions upon these subjects and upon the effects of quinine in decided doses, in abating feverish heat and excitement in other fevers than malarial, and in inflammation, may afford material for a future article.—*Medical Journal.*

MEDICAL GLEANINGS.

CONTROL OF HEMORRHAGE BY IPECAC.—Dr. Martin reports to the *N. Y. Medical Journal* a case of capillary hemorrhage controlled by small doses of ipecac, given until vomiting occurred. The tonsil had been injured, and ordinary styptics not proving efficacious, recourse was had to ipecac. As soon as vomiting occurred, after two-grain doses of the medicine given every two hours, the hemorrhage was effectually checked.—*Medical Record.*

EMPHYSEMA IN DIPHTHERIA.—Four cases of emphysema of the surface, in diphtheria, are related by Dr. Guterbock, in *Virchow's Archives.* He thinks, as originally suggested by Virchow, that the air of interlobular emphysema finds its way by the bronchi into the cellular tissue. Such cases are therefore much more serious than those of emphysema after tracheotomy, which operation is, in fact, not rendered more dangerous by the complication in question.—*Medical Record.*

A NOVEL METHOD OF PRODUCING SLEEP IN INFANTS,—Dr. Curran, writing in the *Dublin Quarterly Journal of Medical Science*, of the Medical History of the Himalayas, speaks of a curious way which the women of the country have of quieting their children when obliged to leave them. When a mother goes into the field to work, or is otherwise unable to take her child with her, she selects some sheltered spot near a stream, in which she places some straw for a bed for her infant, and then directs, by means of a piece of split bamboo, a current of water, of from one to two or three inches in diameter on its uncovered occiput and temples. This produces a soporific effect, which generally lasts as long as the water continues to flow. The sleep is said to be very soothing, and children who have been much subjected to its influence are known to have been unusually free from the annoyances incidental to the period of dentition.—*Medical Record.*

THE SOCIAL EVIL.—Men sprinkle prostitution with rose-water and call it the Social Evil. This is a better title under which to invoke legislation. It keeps persons off the scent. In England, "Contagious Diseases Act" served the same purpose. Such was the title of the law smuggled through Parliament "to improve the health of the Army and Navy." A year or two after its passage, people woke up to find they had licensed prostitution in certain districts. Then came opposition, and a cry for repeal on the one side, and an effort on the other side to extend the law over the entire kingdom. Associations were organized for both purposes. Opposition has gained ground, and last year six hundred thousand signers protested against the law. The law has been transplanted to America—to St. Louis; no where else, as yet. Now comes an effort to apply it to San Francisco. Its friends allege that it has succeeded elsewhere. Its enemies insist that the success is on the surface, and that it has driven the evil out of public view only, and into clandestine retreats, where it is more dangerous to society. Many good people are ranged on both sides. With the enemies of the law, the stumbling-block is the principle of licensing, and thus sanctioning, prostitution. The moral sense of the American people is inflexibly hostile to this principle. They do not believe that the end justifies the means. French and European legislation has schooled many of our citizens of European birth in the opposite faith. Much can be said, and much will be said, on both sides. It is not a subject for hasty legislation. If a plan can be devised to restrict the evil, without violating the principles of morality and justice, and thereby sapping the foundations of society, we shall be only too glad to plead for it. But we protest against that one-sided legislation which protects men at the expense of women—which distrains woman of her liberty, that she may be made a safe subject for masculine lust—which compels her to submit to examinations and operations, in order that she shall not communicate disease to men, and then opens the door of her bedroom to every diseased and beastly lecher, who may enter without examination, without inquiry, without the shadow of restraint. We blush for any professional brother of cultivated conscience, and refined morality, who would advocate such legislation.—*Pacif. Medical and Surgical Journal.*

Book Notices.

TRANSACTIONS OF THE TWENTY-SIXTH ANNUAL MEETING OF THE OHIO STATE MEDICAL SOCIETY, held at Cincinnati, April 4, 5 and 6, 1871. 12mo., pp. 371.

This work contains the minutes of the meeting of the Society, and the various papers read by members, many of which are valuable contributions to medical literature. Also are added the By-Laws, the Code of Ethics of the American Medical Association, and a complete list of active and honorary members, with their Post-Office address, and time of admission. Our highly esteemed friend, Dr. R. R. McIlvaine, is noted as having departed this life, in 1862; but we are happy to say that he still lives, and is as vigorous and vivacious as the youngest member.

The work is handsomely bound in cloth, and printed on tinted paper. Great credit is due Dr. J. W. Hadlock, of Cincinnati, the assistant secretary, for the manner in which the work is issued. The arrangeing of the papers, and the preparation of the whole material was done by him, and certainly it has been most satisfactorily done.

THE PRINCIPLES AND PRACTICE OF SURGERY, By JOHN ASHHURST, JR., M. D., Surgeon to the Episcopal Hospital, etc., Illustrated with 533 engravings on wood. 8vo., pp. 1011. Philadelphia: H. C. Lea. Cincinnati: R. Clarke & Co. 1871.

This very fine work on the Principles and Practice of Surgery, as the author states, is designed to furnish, in as concise manner as may be compatible with clearness, a condensed, but comprehensive description of the modes of practice now generally employed in the treatment of surgical affections, with a plain exposition of the principles upon which those modes of practice are based.

The author claims for his work the character of being something more than a mere compilation from the writing of others. The modes of treatment recommended, are, in almost all instances, such as have proved satisfactory in his own hands, in the course of a not very limited hospital experience, while, in every case, the principles inculcated and the practice recommended, have been conscientiously considered and reflected upon, with such deliberation and attentive care as it has been in his power to bestow.

From our examination of the work, we regard it as comparing favorably with any of the best and most recent works upon surgery. We bespeak for it a position among the standard authorities. Being by an American author, and of the highest merits, will recommend it to American surgeons. The descriptions of operations especially, are plain and easily understood; and on this account it will be valued by the general practitioner and the student.

A PRACTICAL TREATIES ON BRIGHT'S DISEASES OF THE KIDNEYS. By T. GRAINGER STEWART, M. D., F. R. S. E., Physician to the Royal Infirmary, etc. Second Edition, 12mo., pp. 334, 1871. New York: William Wood & Co. Cincinnati: R. Clarke & Co.

In speaking of this work, we can adopt the language of the *British Medical Journal:* "Ought to be perused and carefully studied by every practioner of medicine. Altogether the work is one of the most important contributions to medical science that has lately issued from the Edinburg School of Medicine."

Dr. Stewart divides Bright's Diseases into three classes:

1. *The Inflammatory form*, of which there are three stages.
    - *a.* That of Inflammation.
    - *b.* That of Fatty Transformation.
    - *c.* That of Atrophy.
2. The waxy or amyloid form, of which also, there are three stages:
    - *a.* That of Degeneration of Vessels.
    - *b.* That of Secondary Changes in the Tubes.
    - *c.* That of Atrophy.
3. *The Cirrhotic Contracting, or Gouty Form.*

He remarks that these three different forms, by no means always appear unmixed, but that, on the contrary, frequently two, and sometimes all of them, exist in the same kidney.

The difficult subject of Bright's Diseases, is better elucidated in this work than in any work we have ever met with. With most authors it has seemed to us that more obscurity is shed than light, and one rises from their perusal more befogged than when he first had sat down to them; but such is not the case with Dr. Stewart. He writes fluently, yet succinctly; and is clear in his statements of opinion and fact, on every topic touche dupon.

The text is embellished by some well executed plates, illustrative of the morbid structures, as seen with the microscope.

A HAND-BOOK OF THERAPEUTICS, By SYDNEY RINGER, M. D., Professor of Therapeutics, in University College. 12mo., pp. 483. New York: William Wood & Co. Cincinnati: R. Clarke & Co.

This will be found a very convenient work of reference for practitioners and students--the effort having been made to make it as practicable as possible. The author has been content to state the symptoms, or group of symptoms, which may suggest a medicine; and to indicate the way of administering it, and, as a rule, has omitted the various speculative explanations concerning the mode in which medicines effect a cure. All the principal remedies used in the treatment of disease have their therapeutic actions briefly described, but sufficiently *in extenso* for all practical purposes. The physical properties of medicines of course are not treated of in such a work.

Editorial.

NOTICE.--Our friends no doubt will wonder why the MEDICAL REPERTORY has not made its appearance, and will inquire how it is our name with several others appears on the title page of a *new* Journal! Always ready to "rise and explain" to all proper questions, we will do so in the present instance with pleasure.

On the issue of the December number of the MEDICAL REPERTORY, the co-partnership publishing that Journal, styled the "Medical Journal Association," expired by limitation, and as one of the firm had died, Dr. W. T. Taliaferro, it was concluded not to re-organize it.

A new and incorporated company, however, which the other was not, has been formed under the title of "THE CINCINNATI MEDICAL NEWS COMPANY" for the purpose of conducting a general publishing business--the issuing of books, journals, etc; and in order that the name of the Medical Journal issued by them may correspond with the name of the company, they have concluded to confer upon it, the title of the CINCINNATI MEDICAL NEWS.

The circulation of the MEDICAL NEWS will be very large, larger than that of any other medical journal published west of the Allegheny mountains, and will, therefore, afford advertisers unusual advantages for making their business known to the profession. Besides the regular circulation, extra copies will frequently be issued for distribution to medical students, to County and State medical societies, etc. Every effort will be made to give it the largest circulation of any medical journal published in the United States.

The editorialship will be under the management of J. A. Thacker, M. D., assisted by, as Associate Editors, R. C. S. Reed, M. D., A. J. Miles, M. D. and D. D. Bramble, M. D. These gentlemen were members of the co-partnership publishing the *Medical Repertory*, and are well known to the profession; so much so, indeed, as to give assurance as to what will be the merits of the NEWS.

And now we wish all of our readers a happy new year, and hope that the present year will be the happiest year of their lives so far. While we are laboring for them, in order to keep them supplied with the highest class of medical literature, and to keep them informed of the most recent discoveries in medicine, may we not expect that they will show their appreciation of our services, by remitting to us the low price asked for the journal.

Communications, remittances, and all letters on business, should be addressed to Dr. J. A. Thacker, N. W. Corner of Plum and Longworth Streets, Cincinnati, Ohio.

TRUSTEES OF MEDICAL COLLEGES.—In the December issue of the *Medical Repertory* was an editorial article wherein was shown, at some length, that beyond giving a legal sanction to diplomas, it is not intended, in the very nature of things, that trustees of a private medical college, to which class belongs the large majority of the medical colleges of this country, should exercise any further authority. The members of the faculty contributing the property in the first place, and adding to it afterwards or replacing it with others as may be necessary, from their earnings or from their private resources, are morally the owners and controllers of it, and any interference by the trustees or any other parties on the plea of legal authority is an usurpation.

We are happy to find that the article, which was only designed as a general dissertation on the powers of trustees of medical institutions, meets with endorsement from all sides—from physicians at home and abroad. A distinguished eastern physician, writing to us on the subject, flatters us with the assurance, that the arguments of the article are unanswerable. Another eminent physician approving of our views sends us a copy of the address of Prof. Henry G. Bigelow, of Boston, on "Medical Education in America," to the Massachusetts Medical Society, in which we are pleased to find utterances similar to those expressed in the article and confirming their correctness. On page 236 it is said:

"Most American Medical Colleges are virtually close corporations, which, under a Board of Trustees, in whom the power is legally vested, are really administered by their Professors, who receive the students' fees, and upon whose tact and ability the success of the institutions wholly depends."

And even in regard to universities, where the property has been bestowed by the state or a corporation, and the professors are paid salaries, Dr. Bigelow says:

"A University possesses over all its departments a legal jurisdiction; but it may be a question of expediency, how far this shall be enforced.

Medical teaching should not be too much interfered with, nor its machinery hampered by those who are not familiar with its working. * * * * While formal appointments may be better left to the University, I am satisfied that nominations, as in Germany, should be formally, at any rate practically, delegated to a faculty of medical men. And the same is true of the establishment of Professorships, and of the general organization of the school.

"In medical matters, a University should rely largely upon the guidance and wisdom of those to whom it does not scruple to intrust its teaching. It may well hesitate to ignore their advice, and assume more than a general supervision over machinery which has a complicated relation to the medical community, and especially to the rest of medical teaching throughout the country, of which but a small part is connected with universities—a machinery which, to insure success, must be largely an anomaly in its relations, its rules and its offices, when compared with other departments of a University.

"If a University desires to secure the services of medical men of competence or eminence, most of whom, in this country, unlike teachers of under-graduates, are engaged in active business, it will maturely weigh the question, how it may compensate them,—whether by intrusting them with discretion and authority, which, if you reduce them to the rank-and-file of tutors, and rule them by a non-medical and comparatively uninstructed interference, they no longer possess.

"But another consideration lies deeper. A University cannot judge accurately of medical men, in a community where solid scientific eminence, and mere notoriety in practice, are largely confounded. While in France and Germany, as we shall presently see, the scientific merits of candidates for the higher places, are publicly sifted and proclaimed; no such system prevails, or can find place here: and while abroad, it is well understood that in medicine the most popular teaching may not be the most profitable to the student, in this country professional distinction is often of uncertain character, and you may readily mistake in the teacher, eloquence or any other attractive quality, or accomplishment for science. If you add that in this country, medical teaching is generally esteemed, not as in Germany, in itself an end, but a means, a road to the medical practice, which is here the ultimatum of every medical man, you subject your University authorities to outside pressure, for place and preferment, which they may be unequally unqualified to judge of, and unable or disinclined to resist."

No medical school can reasonably expect to have the patronage of the profession, having a board of trustees made up altogether, or nearly so, of non-medical men, who claim the power to themselves of removing professors, appointing new ones, and doing whatsoever else seemeth to them good, without consultation with those forming the faculty, and by their consent; nor do we believe that any medical man can, or ought to hold a respectable position in the profession, who would advise a board of trustees to act in the face of a faculty; such conduct is so contrary to the genius of medical education of this country that it would meet with general denunciation, and would not be tolerated. The regular profession of medicine are jealous of their rights, and have had reason to be, and do not propose to surrender them up to those outside of their ranks. Medical education, as all know, differs from that of other branches of learning, for it has a *morale* to preserve besides imparting knowledge, and it can only be guided with any security of safety by those of the profession. A non-medical man is as apt to mistake a charlatan for a physician, as he is to recognize a scientific medical man, when one is brought before him. The science of medicine is an occult one to the popular scrutiny, and its true votaries can only be known to those who have entered its portals.

Leaving out of view the wrong involved in a board of trustees of a private institution usurping the control of property that they have no moral right to, when it is once conceded that trustees can remove and appoint professors without the advice of the faculty, and otherwise act independently, there is no guarantee that any college which they have in charge, will not sooner or later become an irregular one, or even an out and out quack institution; and who is there who would be willing to become a graduate of it? There are regular and irregular schools of medicine, having well drawn lines of demarcation between them, as recognized by physicians, and none but medical men are competent to discern them. A school, then, that it is the design to be a regular school of medicine, to be patronized by regular physicians, must be controlled by its faculty; and if it be a University in the property of which the faculty has no interest, even it, as Dr. Bigelow says, "should rely largely upon the guidance and wisdom of those to whom it does not scruple to intrust its teaching." It may well hesitate to ignore their advice, and assume more than a general supervision over machinery which has a complicated relation to the medical community, otherwise it is liable to be diverted from its original intent.

There is not a regular physician in the land, who has no selfish motives to subserve, who would for a moment assent that a non-medical man should be permitted to exercise his discretion in professional matters. Lawyers, ministers, etc. have been tried again and again and have always been found wanting—so much so indeed, that it has been demonstrated beyond a doubt that the dignity and honor of the profession can not be entrusted to their hands. The names of distinguished lawyers and divines are daily seen attached to certificates lauding the virtues of miserable nostrums, or setting forth the skill of some charlatan to the disparagement of scientific physicians, thus furnishing ample evidence that whatever may be their acumen and learning in other respects, in matters concerning the profession of medicine no one can be more ignorant and incompetent to form a judgment. Physicians, under the circumstances, can recognize no schools which they can not control--schools that boards of trustees say, that as the legal rights are vested in them, they will exercise their own discretion and remove professors, appoint other ones, create new chairs, etc., as in their judgment it seems best. The professional *morale* which it is of the utmost consequence should be preserved, cannot be maintained if such be allowed. The rigid lines of demarcation which have been drawn between regular and irregular medicine would soon be treated with contempt by a parcel of irresponsible lawyers and preachers and broken down, and the quack made respectable. If medical men did not turn their faces against such schools like flints, how very soon would the veriest shams and brawling pretenders be filling all the chairs. If leading legal and business gentlemen, over their signatures, declare that a nostrum, styled the "Great System Renovator," possesses remarkable virtue as a remedy, is unequaled in its curative properties, such individuals, if trustees of a regular medical college and at liberty to exercise their own views, to be consistent should place the author of the nostrum in the chair of materia medica. It is only the feeling with honorable men that they do not possess this independence, that they would be exercising their power illegitimately, and betraying the confidence reposed in them, that prevents.

CITY HOSPITAL AT ALBANY.--Dr. Gaillard, of the *Richmond and Louisville Medical Journal*, says that the "Board of Governors of the City Hospital at Albany, New York, is still outraging the decency and efficiency of that institution, by repudiating the best medical talent of their city, so long as this refuses to be used for partisan purposes, and to pander to the desires of their unworthy protege, Dr. Armsby." While this may all be true, we wot there are other cities than Albany where common decency is outraged. It seems strange, but it is nevertheless true, that the normal condition of many men is to act as tools of other men, and those always designing men. Without principle, and without individuality of character, they are led captive by any enemy of right, who may be seeking instruments to further his ends; and in his hands, they are powerful for wrong doing, although taken alone they would be as powerless for either good or evil, as the puppy that has just whiffed the air. We can see no object in such creatures' being born into the world, unless it is that by their annoyances they may be the means of developing force of character and virtue in those who have the elements of them. Men become great, by overcoming great difficulties; and, of course, if there were no great difficulties to be overcome, there would be no great men.

> " And one of the elders answered, saying unto me! What are these which are arrayed in white robes? And whence came they? And I said unto him, sir, thou knowest! And he said to me: These are they which came out of great tribulation."

Old David, the Psalmist of Israel, was a great sufferer from scoundrels At one time he cries out "mine enemies would daily swallow me up!" At another time, "my soul is among liars!" * * * "They have prepared a net for my steps!"

At one time, the Old Prophet, in comparing his condition with those of the wicked, and seeing how they prospered in their wickedness, while he was leading a life of turmoil and sore vexation, seemed to become discouraged in his right doing, and exclaimed, "they are not in trouble as other men! Neither are they plagued like other men." * * * * "Behold! these are the ungodly, who prosper in the world! They increase in riches--verily I have cleansed my heart in vain, and washed my hands in innocency." But when he went up into the sanctuary, and had his eyes opened, and saw the end of the wicked, he was pricked to the heart, because he had envied them, and thus upbraids himself: "So foolish was I, and ignorant: I was as a beast before thee." He had seen in the sanctuary, that the wicked stand in slippery places, as he thus says: "surely thou didst set them in slippery places: thou castedest them down into destruction. How are they brought into desolation, as in a moment! They are utterly consumed with terrors."

Philosophy and religion, both teach—one the sanctuary of one class of persons, the other, of another--that wrong doing, as well as right doing, will sooner or later bring its reward. Let the sanctuary be consulted, and the soul will be possessed in patience; for nothing is more sure, than that an infringement of moral laws will bring its penalty, as well as an infringement of physical laws. There is only a matter of a little time involved, when the punishment will come.

If Dr. Gaillard will wait a little while, he will find that both the rascals of Albany and of Cincinnati, and of Louisville, too, if there are any down there, will eventually get their dues.

POST-OFFICE DECISIONS.--Any person who takes a paper regularly from the Post-Office--whether directed to his name or another or whether he has subscribed or not, is responsible for the payment.

If a person orders his paper discontinued, he must pay all arrearages, or the publisher may continue to send it until payment is made, and collect the whole amount, whether the paper is taken from the Office or not.

The Courts have decided that refusing to take newspapers and periodicals from the Post-Office, and removing, and leaving them uncalled for, is *prima facie* evidence of intentional fraud.

THE DISEASES OF ALASKA.--Dr. W. T. Wyth, (*Pacif. Med. & Surg. Jour. and Med. Rec.*) in his "Medical Notes on Alaska," states, that Bronchitis is never absent there: Catarrh is seen at every change of the weather. Pneumonia often occurs, and in sporadic cases assumes a typhoid type. Rheumatism is very obstinate, and occurs very often, and generally takes the articular form. Tuberculous diseases are very common among both natives and whites. Phthisis runs a fearfully rapid course. Eczema is often seen, but yields readily to treatment. Syphilis is slowly, but surely killing all the natives of the North-west coast. Rheumatism, Bronchitis and Scurvy, are the prevailing diseases. Transverse fractures of the lower portion of the radius, often happen from accidents peculiar to the country, viz: trapping and rowing. Variola has never reached Alaska.

DIVIDED MEDICINES are the most convenient preparations with which we are acquainted. Physicians making use of them, know to a mathematical certainty the dose they are administering, and we would presume, therefore, they would immediately become popular with country physicians. Many physicians of the city are in the habit of carrying, in their visiting lists, several different squares of the narcotic preparations for immediate use.

SMALL POX.--This disease still continues to be an epidemic in Cincinnati. The mortality has been on an average of from sixty to seventy a week. Energetic measures are being made by the Board of Health for staying the disease. The children of the Public Schools have been vaccinated by the city physicians. We understand that the German population suffer the most, from their neglect of vaccination.

GOOD ADVICE.—We clip the following good advice from the address of Dr. H. R. Storer, of Boston, delivered at the annual meeting of the Association of Medical Editors, on May 1, 1871.

I have exhorted you to be kindly affectioned one to another, and toward all mankind; but at the same time, I warn you, would you preserve your influence, that of this Association, and your own self-respect, never to palliate wrong, never to afford shelter to the evil doer. To do so, seems often the easiest course,--it indeed may be for the time,—while to act uprightly may involve temporary misconception, remonstrance, or blame.

THE Faculty of the Detroit Medical College have decided to allow no students to enter for graduation who have attended their *first* course of lectures the winter preceding, thus relieving this college of the *opprobrium* which has been heretofore attached to spring or summer schools. We commend their action to similar schools.—*Medical Record.*

MICRO-PHOTOGRAPHY BY SUNLIGHT—Making due allowance for the overdrawn statements of enthusiasts, it must be admitted that microscopy has done a great deal for every branch of medicine and surgery. No one is therefore backward in acknowledging the necessity for its cultivation as a science, and all interested in the progress of an art must hail with satisfaction any means to such an end.

Perhaps no one in this country has worked with more singleness of purpose in that direction than Assistant-Surgeon J. J. Woodward, at Washington. Possessed with remarkable skill and extended experience in every department of microscopy, and having all the necessary apparatus at his command, he has succeeded in solving many difficult problems of the science, and in reducing the obstacles in the way of their solution to a minimum. Not the least of these is the discovering of a new method of photographing by sunlight. The profession are already informed of the results of the experiments of this gentleman in the production of photo-micrographs by the electric and magnesium lights, and not a few have seen the surprisingly beautiful and accurate pictures which he has by such means produced. The use of sunlight in micro-photography has been attended with so many difficulties, and the results have been so unsatisfactory, that in a practical point of view it became of little if any account. But Assistant-Surgeon Woodward, as the result of much study, has succeeded in substituting solar for artificial light, and has been enabled to make photographic delineations of the microscopic field, which in definition and accurate detail challenge competition.—*Medical Record.*

A NEW BOOK.—The press of Dr. S. W. Butler, of Philadelphia, will have ready in a week or so, a work on *Consumption: its Pathology and Treatment. To which is added an Essay on the use of Alcohol, in the Treatment of Consumption. By Wade Minor Logan, M. D.* Dr. L. is a young physician of this city, and his articles on Consumption, as published in the *Reporter* of Philadelphia, has attracted much attention. The treatment he proposes is his own. On the issue of the work, we will be happy to notice it.

PAMPHLETS RECEIVED.—We have been favored with a copy of Professor B. F. Richardson's introductory address to the present course of lectures of the Miami Medical College. It is entitled "On the Tendencies and Mutations in the Progress of Medicine," and is very well worth a perusal. Prof. R. is a close observer and careful thinker.

The Physician's Annual: a complete Calendar for the city and country practitioner. 1872. Philadelphia, S. W. Butler, M. D. A valuable work, on account of the varied information it contains for every Physician. Gives a list of all the Medical Colleges; Catalogue of Medical Books, and prices; domestic and foreign Journals; Medical Societies; Statistical Memoranda, etc., etc., 12mo., pp. 83. Paper Covers.

On Chronic Hypertrophy of the Lips, by R. W. Taylor, M. D., Surgeon to the N. Y. Dispensary, 8vo., pp. 8. New York: William Baldwin & Co.

Lessons on Population, suggested by Grecian and Roman History. By Nathan Allen, M. D., Lowell, Mass. 8vo., pp 16.

The Relations of Epilepsy to Insanity, and medical jurisprudence. By W. J. Conklin, M D., Assistant Physician of Southern Ohio Lunatic Asylum. 8vo., pp. 43.

The Clinical Thermometer: its Lessons and Teachings Tentatively expressed in Numbers. By Z. C. McElroy, M. D., Zanesville, Ohio. 8vo., pp. 17. Contains much valuable matter.

Transactions of the Medical Society of the State of West Virginia. Instituted, April 10th, 1867. 8vo., pp 312.

Contains papers by Drs. A. S. Todd, H. J. Wiesel, C. S. Bronson, W. H. Sharp, Walter Coles and B. W. Allen.

The Mutual Relations of the Medical Profession: its press, and the community. By Dr. Storer, Jr., (Horatio), of Boston. 8vo., pp. 23.

HEARTH AND HOME—Every family should be supplied with a good family paper. We know of none better than *Hearth and Home.* It is a home and literary newspaper of the highest order. Its general features embrace editorials, best original stories, household department and children's and youth's department; also original and beautiful engravings. Its moral tone is the very best. Orange Judd & Co., Publishers, New York. Price $3.

THE

CINCINNATI MEDICAL NEWS.

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HOUR-GLASS CONTRACTION.

By A. E. Duncan, M. D. West Milton, Ohio.

Fortunate it is for all connected with the parturient chamber, that hour-glass contraction of the uterus is of rare occurrence. Some of our aged medical brethren have not met with a case in a professional life time. But such has not been my good fortune. I have met with two cases in less than ten years practice.

The first case was that of Mrs.—— (Oct. 1863) in her third accouchment. In her first two she had given birth to healthy living children at full time. In *this* it was an abortion about the beginning of the fifth month. The patient states that the "water broke some three weeks ago;" and that the "water continued to flow at times for a few days." Patient had more or less pain daily, during those three weeks, but not so as to prevent her from attending to her daily work. Evidently the membranes (*chorion* and *amnion*) had ruptured, and the liquor amnii made its escape.

At time of parturition the fœtus was readily delivered. Placenta retained; which could not be felt without introducing the hand into the uterus, which was not at first done. There were no pains to indicate an effort of the uterus to expel its contents. Administered vinum ergotæ. Made slight extension on the cord, which easily gave way at the placental attachment. At this time there was some hemorrhage, which was followed by profuse flooding. The hemorrhage was now of such a character that the life of the patient was in serious jeopardy if not an once relieved.

The position of the patient required that my left side should be toward the bed, hence the introduction of the left hand into the vagina; thence into that part of the uterus that had so recently contained the fœtus, when the hour-glass condition of the uterus was discovered—the uterus being steadied by my right hand, through the abdominal wall. The centre of hour-glass was about one inch in diameter, and slightly dilatable. Two fingers were passed into the fundus uteri where the small placenta was imprisoned, which was at once brought away without difficulty. There were no utero-placental adhesions.

The *cause* of this irregular contraction was produced either by the ergot, or from the position of the placenta and fœtus (the one at fundus—the other at cervix uteri), and the length of time since the escape of the liquor amnii. I am inclined to the *latter*, of the two causes, as *the cause*.

The second case. Nov. 15, 1871, was called nine miles in the country to see Mrs.—— in her second confinement, at full time. There was a vertix presentation, and first position. The first stage of labor lasting eighteen hours. The os uteri soft and dilatable early in the labor. The last eight hours of the first stage the pain had almost ceased; patient feeling quite comfortable. Why not administer ergot? There were two reasons why I did not. The right side of the os uteri was prone to remain forward anterior to the fœtal head; and there was a more than ordinary prominence in the epigastric region, which were the only things unnatural in the case, except delay.

The second stage of labor was eight hours. The last three hours of labor the patient was weary, and felt exhausted after each pain. I gave during this time spir. vi gallici and ext. ginger, with good effect. At the end of the twenty-sixth hour of labor the patient was delivered of a living male child—weight eleven pounds. The patient was allowed to rest a few minutes in the horizontal position. Slight uterine pain occurred, and an effort was made to remove the placenta. By passing the hand into the vagina so as to allow the finger to enter the uterus, it was found to be empty as far as could be thus explored, save the cord. With this fact ascertained, and the peculiar elongated condition, as observed through the abdominal wall, the hour-glass condition of the uterus was at once anticipated. Without further delay I thoroughly anointed my right hand, and gently passed it into the vagina, and thence into that part of the uterus from whence the fœtus had been recently expelled, leaving my left hand free to make extension on the cord as I might desire, and having the uterus steadied by a female assistant. The central contracted portion was rigid, and about one and a half inches in diameter. In passing the finger between the placenta and uterine wall, no adhesion could be found within the finger's length. No attempt was made to dilate the central hour-glass for the introduction of the entire hand. But by the use of two fingers within the fundus uteri, and extention by the cord, a small portion of the placenta was soon brought through the passage; and by a continued stepping motion of the two fingers, and traction on the cord, a rotating motion of the placenta was effected, and a speedy delivery of the imprisoned placenta effected.

The cause of this hour-glass contraction cannot be ascribed to *either* of the two circumstances referred to in the first case. The only cause that I could assign with any degree of plausibility is this: the patient carried her infant babe, (thirteen months old at birth of second.) in her left arm, resting on the ilium, and against the side of the abdomen, during those months of gestation, thereby preventing the regular expansion of the uterus on the left side. A partial indentation was produced on the left side, and a slight inclination of the middle third of the uterus to the right, and the os uteri to the left. This idea is corroborated by the os uteri projecting farther forward on the right than on the left, as observed early in the labor.

This patient had a good getting up. And so had the former one, after taking into account the unusual loss of blood in the case.

ANEMIA OF THE BRAIN—SOFTENING.

Compiled for the MEDICAL NEWS.

In cerebral anemia the quantity of blood in the brain is either reduced below the normal standard, or the quality of the circulating fluid is impoverished. The first named condition is due either to direct loss of blood, to deficient action of the heart, to impaired nutrition, or to some cause preventing the due access of blood to the brain; the second to disease of some organ concerned in hæmatosis or to a general cachexia.

Among the causes that diminish the entire amount of blood in the brain belong not only obstructions of blood and spontaneous hemorrhages, but extensive losses of fluid, considerable exudations, and tedious, particularly feverish, diseases. Unfortunately, it occasionally happens that, in internal hemorrhage, anemia of the brain is mistaken for hyperemia, and treated accordingly. The form of the disease which, since the time of Marshall Hall, has been known as hydrocephaloid, is particularly common in children who have suffered from continued diarrhea. Typical examples of this are not unfrequently seen as a result of extensive hepatization in weak persons with pneumonia. But protracted fevers also consume the flesh and blood of the patient, induce general poverty of the blood, and, as one symptom of it, anemia of the brain. In all of these diseases, blood and the fluids of the body are lost or used up too rapidly; on the other hand, the amount of blood may be diminished by its formation being limited from insufficient supply of nourishment. Thus, in persons who have died of starvation, the most marked symptoms of anemia of the brain have been observed before death.

This affection not unfrequently results from the overloading of other organs with blood. The best example of this form are the cases where it is induced by the application of *Junod's* cupping boot, by the injudicious use of which the anemia may readily become dangerous. This also explains why, when the heart's action is weak, a person faints more readily when standing up than when lying down.

Another cause is compression or obstruction of the arteries supplying the brain. In almost all of the cases of this class that have been reported, the obstruction was artificially caused by ligation of the carotid.

Symptoms.—In cerebral anemia, suddenly induced from profuse hemorrhage, the most prominent symptom is syncope. Vertigo is generally an attendant, and there are paleness of the features and coldness of the extremities. The pulse is frequent, thread-like and weak. The respiration feeble and accelerated.

But, when the accession is more gradual, headache is very generally present. It may be, and usually is, confined to a limited portion of the head, sometimes to a spot not larger than the point of the finger. A feeling of constriction, especially across the brows, is complained of, and the vertigo, notably increased on rising from the recumbent posture, is as troublesome a feature as in the worst attacks of cerebral congestion. There is ringing in the ears. and loud noises are not only painful but are exceedingly irritating to the nervous system. The pupils are largely dilated, and are sluggish, contracting slowly and but little on exposure to a strong light. These phenomena may be restricted to one eye, a circumstance which generally occasions needless alarm on the part of the patient. The retinæ are extremely sensitive, and hence ophthalmoscopic examination is painful. When employed, the vessels at the fundus of the eye are seen to be small and straight, and the choroid is paler than is normal.

In some cases of anemia of the brain, particularly in children, the *motor* disturbances are the most prominent. The symptoms of anemia of the brain in children from exhausting diarrhea and other debilitating causes, so-called *hydrocephaloid*, often so closely resemble those of acute hydrocephalus, that the distinction of the two states may be very difficult. Marshal Hall divides hydrocephaliod into two stages; one of irritation and one of torpor. In the first stage the children are very restless and capricious; constantly toss about in bed; readily frightened, they cry out in their sleep; gnash their teeth; the face is usually flushed; the pulse frequent and temperature elevated. There is always slight twitching of some limbs, frequently also there are general convulsions. In the second stage the children collapse; become entirely apathetic, no longer attend to objects held before them; the eye lids are half closed, the pupils insensible to light; respiration becomes irregular and rattling; finally death occurs with symptome of coma. Since we regard the so-called symptoms of pressure in the diseases of the brain and its membranes (among which are effusions into the ventricles), which encroach on the cranial cavity, as due to compression of the capillaries and obstruction of the supply of arterial blood to the nerve elements of the brain. We do not consider the great similarity of the symptoms of hydrocephalus to those of hydrocephaloid as very strange. Different as are the modes of origin of the two diseases, we believe that in both of them there is ultimately the same pathological disturbance, *i. e.* capillary anemia.

The mind. of course, participates in the general disorder. In extreme cases, due to active hemorrhage, the patient is completely insensible. In less severe forms there may be all the gradations from low delirium to great mental irritability, or a condition of intellectual lassitude approaching dementia. Hallucinations and illusions are common in slowly developed forms of cerebral anemia, and may affect any or all of the senses. Those of sight and hearing are, however, more prominent.

Certain medicines are causes of cerebral anemia, both by their action on the vaso-motor nerves and in diminishing the power of the heart. Tobacco, tartarized antimony, calomel, oxide of zinc, and the bromides of potassium, sodium and lithium are among the chief of these.

Cerebral anemia may be diagnosticated from cerebral congestion by the history of the case, and a careful inquiry into the etiology; by the fact that drowsiness, not wakefulness, is a prominent symptom; that the pupils are dilated instead of being contracted; that the pain is more apt to be fixed in a limited part of the head instead of being general; that it and the vertigo are increased by the assumption of the erect position, and diminished by lying down; that the opthalmoscope shows retinal anemia; that the face is pale and the skin cold; that the pulse is weak and frequent; and that bellows' murmurs are heard at the base of the heart and in the veins of the neck. The effect of stimulants and tonics in mitigating these symptoms, and the fact that they are increased by exertion and debilitating influences, are also important points to be considered in forming a diagnosis. Attentive consideration of these differential phenomena will prevent a mistake which may be fatal to the patient.—*Hammond.*

PARTIAL ANEMIA.—One or more arteries of the brain may be obliterated and anemia of those parts supplied by it produced through the action either of thrombosis or embolism.

By *thrombosis* is understood a condition in which a bloodvessel undergoes narrowing of its calibre by the deposition of fibrine from the blood on its internal surface. The clot thus formed is called a thrombus.

Embolism is the term applied by Virchow to the closure of an artery by an embolus, which is a clot formed in some other part of the body, and transported by the current of the blood to the vessel which it occludes. It therefore differs from thrombosis in the facts that it is not associated with previous disease of the artery, and that the closure of the vessel *is sudden.*

The phenomena observed in consequence of the formation of a thrombus in a cerebral artery are *gradual* in their development, and are often interrupted by stages of apparent improvement.

In embolism *there are no premonitory symptoms.* As in cerebral hemorrhage, the patient may be sitting perfectly quiet when he suddenly loses consciousness and falls to the ground, comatose. As the stupor passes off, he finds that he is paralyzed upon the side of the body opposite to the seat of the lesion.

Thrombosis may result from atheroma of the artery, by reason of which its elasticity is diminished and the smoothness of of its lining membrane destroyed. Both these conditions retard the course of the blood, and favor the deposition of fibrine on the internal periphery. The walls of the vessel may be healthy, and a thrombus may then be formed through a weak action of the heart, the result of fatty degeneration or other cause impairing its strength.

The predisposing causes are, age, the disease being rare in persons under fifty years, the excessive use of alcoholic liquors or of fatty or starchy articles of food, with insufficient exercise, and perhaps inordinate mental exertion, which by impairing the tone of the arteries, in consequence of their over distension, dimininishes their elasticity, and may consequently lead to the formation of thrombi.

Thrombosis is distinguished from cerebral congestion by the facts that the mental and other symptoms are more profound in character, and that the patient has generally passed the prime of life. The existence of paralysis among the early symptoms will likewise tend to the formation of a correct opinion. From cerebral hemorrhage it is diagnosticated by the circumstance of its gradual development; from encephalitis by the absence of fever and the more chronic nature of the disease; and from embolism by its slow progress and the impossibility of defining the exact period of its beginning.—*Hammond.*

Although Virchow was the first to write distinctly in regard to the nature of thrombosis, the condition was recognized long before his researches were made; and cases of clots plugging up the vessels are to be found detailed by many of the older medical authors, among whom Abercrombie, Carswell and Cruveilheir may be mentioned. Since Virchow began his observations in this direction, many instances have been recorded and a large number of memoirs have been issued upon the subject. An interesting case was related by Dr. Packard, of Philadelphia, at a meeting of the Pathological Society of that city held in December, 1859. The patient, who had been under the care of Dr. Heller, was a bachelor, fifty-one years of age. At 6 o'clock in the morning, at the beginning of February, he was seized with paralysis of the left arm and leg. He was a man of very regular habits, and of fanatical love for every thing instructive; and an accomplished scholar in botany, geography and languages. The paralysis was soon relieved, and he was able, four weeks afterwards, to go out again, and to use his arm tolerably well. About the middle of March, in consequence of a fatiguing walk the previous evening, and an attack of diarrhea during the night, complete paralysis returned. From this he never recovered, but yet did not die till the December following. Previous to this termination he had confusion of ideas and delirium. Upon post-mortem examination, among other morbid changes, a cavity in the right corpus striatum was found, and this was surrounded by a spot of softening of the cerebral substance as large as an egg. The basilar artery was completely blocked up with clots, as was also the right carotid. These vessels were atheromatous, and the basilar artery was aneurismally dilated. The clots had all the appearance of being old.—*Hammond.*

Obliteration of the cerebral artery does not alweys produce notable symptoms. For these to follow, the morbid process must be set up in a vessel with but few and small collateral branches. Thus, if the internal carotid be obstructed, the circulation is carried on through the circle of Willis by the supply of blood derived from the vertebrals. The basilar artery might also be occluded at any limited region between a pair of transverse arteries, and the circulation still kept up by the carotids on the one side, and the vertebrals on the other. But any closure, so as to involve one or more of the transverse arteries, must lead to anemia, and subsequent softening of the pons varolii. Thus, in a case reported by Bennett, in which there had been vertigo and other head symptoms for several years, and in which paralysis of the left arm, without loss of consciousness, had suddenly supervened, the basilar artery was found entirely obliterated throughout its entire extent, all the transverse arteries were of course closed, and the supply of blood to the pons cut off on both sides of the mesial line.

[To be continued.]

GONORRHEAL RHEUMATISM.

Mr. L. W. Nunn, in a lecture delivered in the Middlesex Hospital, and reported in the *Lancet*, said: The history of a typical case of so-called gonorrheal rheumatism is somewhat as follows:—the patient finds himself with a urethral discharge: immediately past circumstances justify a suspicion that he has contracted a gonorrhea; probably three weeks after such a discovery, the knee, elbow or ankle, puffs up, and he suffers more or less constitutional disturbance: so lamed, the patient is driven to seek medical advice.

Suppose now the same sequence of phenomena to occur three, or four times in the same individual, one would naturally say: here we have cause and effect; in some way or other, clearly, the urethral discharge is the cause of the articular rheumatism. * * * * * * But against this view it can be urged—first, that gonorrhea is not due to any specific animal poison; and, secondly, that women never, or with very rare exceptions, suffer from gonorrheal rheumatism, notwithstanding that the extent of mucous surface inflamed is much greater in women than in men in this disease; and there is nothing in the difference of sex that would prevent a specific animal poison from affecting equally either sex. This immunity of the female gives us, I think, the clue to the nature of the disease. In the male, the mucous membrane inflamed is a part of the urinary, as well as of the genital, system, and is in direct communication with the kidney; and so there is no necessity of diverging into a discussion on the specificity or non-specificity of gonorrheal inflammation, since we can rationally infer that the functions of the kidney would be liable to disturbance by a morbid action at the distal segment of the genito urinary canal, from the known sympathy of the various portions of the same system with each other.

To return to facts, I will give you a history from my private note-book— * * * *

In this case, then, in the course of four or five years the patient had three attacks of gonorrhea, and three attacks of rheumatism, in each instance the rheumatism coming on within about three weeks after the commencement of the urethral discharge. Without question, I think, this is a case of rheumatism, depending for its exciting cause upon an inflammatory condition of the urethra, that inflammatory condition being gonorrheal. However, it is not uncommon to meet with cases of urethritis originating in a rheumatic or a gouty state of the system, the urethral discharge being merely one of the rheumatic or gouty phenomena. For instance, I have before my mind's eye a case in which I have repeatedly observed that the earliest symptom of an attack of gout is a purulent urethral discharge, accompanied by a scalding in passing water, and chordee. Unless complete and absolute confidence could be placed in the statements of the patient, it would be quite consistent with what we ordinarily see, to conclude that he had gonorrhea. Thus we have an easy path to an erroneous diagnosis; and I have no doubt that it had been owing to the confounding of cases like the first described, with cases like this, that such indefinite opinions have been promulgated. Mr. Athol Johnson, for example, says that "synovial inflammation is occasionally met with in connection with purulent inflammation of the urethra, or even with purulent ophthalmia. This complication appears to have been first described by Sir Benj. Brodie, and usually now passes under the name of gonorrheal rheumatism, though it differs from rheumatism, and is not necessarily connected with gonorrhea." * * * * "All stages of gonorrhea may present this complication, and usually no material change in the disease is noticed, though sometimes it declines a little when the synovial affection shows itself." I refer you to the book named, for fear I should be doing Mr. Athol Johnson injustice. I cannot, however, omit adding that gonorrheal rheumatism was described by Swediour, at least twenty years before the publication of Sir B. Brodie's first book on Affections of the Joints.

Now I will give you illustrations of the sympathy of the urethral mucous membrane with the rest of the system. It very frequently, almost as a rule, occurs that the first passage of a bougie is followed by faintness. The simple passage of a bougie or catheter may be followed by a rigor; within twelve or twenty-four hours the patient on whom the bougie or catheter has been passed has a shivering fit, which is succeeded by other symptoms of feverishness. This occurrence, by the way, you will find very annoying and perplexing; it, however, usually leads to nothing more serious, but I have met with instances in which it initiated a troublesome illness.

Here is another almost parallel example. Gonorrhea is liable to be followed by orchitis; inflammation of the urethra from other causes may also induce orchitis, and even the simple passing of a bougie will occasionally do the same; it being remembered, however, that the bougie or other instrument would not have been used unless there had been already existing some indication for its employment in the condition of the genito-urinary track. Besides the faintness at the moment of the passing of a bougie—the intense rigor coming on some hours after the same operation—and the acute inflamatory phenomena in the testis just described, we meet sometimes with instances of urethral inflammation giving rise to symptoms of intermittent fever. Several years since my friend, Mr. Henry Smith, of King's College Hospital, published a case in which a small abscess, just external to the urethra, somewhere near the bulb, was the cause of a train of symptoms having, one might say, an exact resemblance to those of intermittent fever. I have met with similar cases; one was that of a medical man who had been resident in India, but who applied to me on account of a very bad urethral stricture; he had taken large quantities of quinine without effect. Bearing Mr. Smith's case in memory, I examined the perineum of this patient, and found a small, hard knot, which I punctured, letting out not more than half a drachm of thick pus, but with an immediate cessation of the aguish symptoms. *

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Thus, then, we shall meet with cases (*a*) in which rheumatism is caused by urethritis, (*b*) in which urethritis is caused by rheumatism or gout, and (*c*) in which constitutional syphilis is the cause of both the urethritis and the rheumatism. I take this opportunity of saying a word or two regarding the connection between constitutional syphilis and urethritis. I endeavored in a paper read before the Medico-Chirurgical Society in June, 1866, to show that one of the causes of obstinate stricture of the urethra—that is to say, adhesive urethritis—was a state of the system due to constitutional syphilis. Curiously enough, such a cause of stricture of the urethra is not mentioned in special works on syphilis or on stricture. Dr. Oppert, for example, in his book on visceral syphilis, while including almost every other mucous canal, omits to allude to the urethra in this point of view.

In the treatment of any case in which we meet with urethral discharge, and synovial inflammation coexistent, it is, therefore, obvious that we must search into the history of the case before any plan can be rationally determined upon, or rationally modified. At the outset of the complaint you will regulate your treatment according to the conclusion come to as to the exciting cause. Thus, if the urethritis arise from gonorrhea, you will treat the gonorrhea, leaving the rheumatism, so to speak, to take care of itself. If you are wise, you will not neglect the lessons to be derived from an attentive observation of cases even of gonorrhea. If the urethritis be caused by a gouty or a rheumatic diathesis, you may, as before suggested, easily fall into an error of diagnosis, and prescribe copaiba or cubebs for a patient who has a kidney already damaged by gout. If the urethritis be an accompaniment of constitutional syphilis, it is tolerably certain that a course of mercury in some shape will be required.

THE SULPHO-CARBOLATE OF SODA.

Read before the Luzerne County (Pa.) Medical Society, Jan. 10, 1872, by Dr. J. B. CRAWFORD, of Wilkes Barre.

I present, for the inspection of members of the Society, samples of a medicine but recently introduced to the profession, but one which I think is destined to take rank as a remedy of wide utility and general use—the Sulpho-Carbolate of Soda.

In that wide range of morbid action, in which carbolic acid is indicated, this double salt, from its palatableness, and its ready tolerance by the most susceptible stomachs, furnishes an agreeable mode of administering an amount of the acid that would not be borne if given in any other form.

The efficacy of carbolic acid as an antiseptic seems to be well established, and I will not now enter into an extended discussion of its merits, nor of the manner in which it fulfills the many purposes to which it has been successfully applied. The belief has become pretty general in the medical profession that in many diseases, particularly these of an epidemic or of a contagious character, living molecules, enjoying an independent vitality, gain access to the interior of the human system, and live and propagate in direct contact with the living tissues that contain them; that the contest for existence which ensues between the containing tissue and its parasite, gives rise to the peculiar symptoms which characterize each specific malady; and that the various phenomena of disease are but the efforts which the invaded tissues make to resist and to cast off the offending materials.

In the treatment of disease in accordance with this theory, the first practical requirement would seem to be to destroy the vitality of these parasitic molecules which are the prime cause of the morbid changes. A little reflection will remind us that those medicinal agents which we have long administered in zymotic diseases are the very ones which are most destructive of minute animal and vegetable organisms *out of the body;* such as quinine, arsenic, alcohol, sulphurous acid, the sulphitis, etc. These have in the main, been given because experience demonstrated their utility, and without reference to their antiseptic power.

Among the antiseptics which are capable of being absorbed into the blood, carbolic acid holds a prominent place. Its disagreeable taste and odor and its caustic action, when uncombined, render it very objectionable in its pure state. The sulpho-carbolate of soda furnishes a form for administering it which is free from these objections. This salt contains one fourth of its weight of carbolic acid. As high as sixty grains have been given to an adult, repeated at intervals of four hours, being the equivalent of fifteen grains of carbolic acid, or ninety grains in twenty four hours; a quantity far exceeding in amount that which could be given in the crude form.

The fact that in cases where a larger amount of this salt has been administered, sodium sulphate has been found in the urine, but no trace of carbolic acid, while the breath of the patient presented a strong odor of carbolic acid, would seem to imply that the salt was decomposed in the tissues or the blood, and that carbolic acid, thus set free, must be brought in direct contact with any living organisms contained within the tissues or the blood. This would seem to satisfactorily explain its asserted virtues in the treatment of zymotic diseases. My own experience in the use of this article has not been extensive, yet the results obtained have been very satisfactory. I have treated about thirty cases of scarlatina during the past year, in which I have relied almost exclusively upon this article. Most of my cases have been mild, although several of them were severe. All recovered. I have administered it in about fifteen cases of diphtheria, and, whenever given early, with equally satisfactory results. I applied a strong solution (ʒi ad ℥ij) to a troublesome case of barber's itch, and soon effected a cure. Within a few days I have seen a chancre rapidly heal, to which only lint, saturated with a solution of this substance, was applied.

I propose to test the value of this article in other diseases, and will communicate the results obtained at a future time. Should any of my fellow practitioners deem this article worthy of a trial, I trust they too will communicate to the Society the results of their experience.

NATURAL HISTORY OF TUBERCLE.

Dr. C. F. Rodenstein, in a paper read before the Yonkers' Medical Society, and published in the *N. Y. Medical Journal*, expresses it as his opinion that tubercles have their origin in an extravasation of white corpuscles of the blood. We give a number of extracts from the paper.

By microscopic appearances it is impossible to distinguish separate tubercular cells, such as we see scattered over the pia mater, from white blood corpuscles. In every anatomical feature they are identical. It is true, both in text books and in the lecture rooms of eminent medical schools, the size and shape and nuclei of tubercle-cells are contrasted with those of the colorless cells of the blood. The same has been done in descriptions of pus-corpuscles; and yet who will now maintain that there is a structural difference between pus and white blood corpuscles?

Virchow's fullest description of a tubercular cell is given in his great work on "Morbid Tumors," vol. ii., page 637. "The true tubercular corpuscle is a real cell," he says; "neither a mere nucleus nor a solid body. Like lucæmic, typhous and scrofulous cells, it resembles in all essentials the elements of lymphatic glands. It is a round cell of very variable size, generally smaller than the colorless corpuscles of the blood; sometimes, however, larger, double and triple their size. The cell-body is colorless, transparent, feebly granular, easily injured, so that it may be destroyed by pressure or section, by the addition of water or other fluids. In the interior of the fully developed cell there is a single nucleus, small, tolerably homogeneous, frequently shining, which sometimes, however, is larger, distinctly granular, and furnished with a neucleoli. Larger cells contain at times two or more neuclei, yes, sometimes twelve and even more. The multiple neuclei are often small and smoother, but not always in the same cell of equal size, sometimes quite large and granular." Now, this definition is as admirably descriptive of pus cells as it is of tubercular cells, and all these variations of form and color, and contents were considered as sufficiently characteristic to distinguish them from the colorless blood corpuscles, which were believed to be less variable, at least in size. But Max Schultze, who has lately devoted himself to the study of the cellular elements of the blood, informs us that he constantly observes (and the observation can be verified by every one as soon as his attention is directed to this subject) that there are colorless corpuscles in the blood which do not attain the size of the red corpuscles; that they are round cells, containing *one* or two neuclei; that there are others much larger, containing also only one or two neuclei; others which contain more, some of which are finely granular, others coarsely granular; that the nuclei of some are more homogeneous than others; and again, that some have nucleoli and others have not. We have, therefore, here again all the characteristics of the pus and the tubercular cells. There is, however, one characteristic which is the most striking and wonderful quality of the white blood corpuscles, and this is its power of locomotion: it is rather this physiological function, than any anatomical structure, which has enabled modern microscopists to recognize the identity of the white corpuscles of the blood with lymphoid cells in other tissues. Since the discoveries of

Von Recklinghausen, they are spoken of as contractile migratory corpuscles, or amœboid cells. Now, tubercles are generally only seen after death, and of course, amœboid motion is as utterly out of the question as muscular motion. But there is at least one organ in which tubercles can be seen during life, namely, the eye. Whether there were such tubercular deposits in the case I observed, could not be ascertained. Ophthalmoscopic observations were impracticable, and *post-mortem* examintion had to be avoided on account of the necessary mutilation. But there are now quite a number of cases on record in which tubercles were observed in the choroid. Manz supposed them to be proliferations from the cells of the adventitia of the blood-vessels. Bush, however, found nothing which would confirm this opinion, and assumed, as they must be the results of cell proliferation, that they come from the large unpigmented stroma cells of the choroid. But Cohnheim, who reported seven cases which had been under his observation, says tubercles of the choroid proceed neither from the nuclei of the capillaries nor from the large unpigmented stroma cells, but from a third kind of cells, which are found beside the pigmented and unpigmented stroma cells; they are small pale finely granular cells of the character of lymph and pus-corpuscle; in short, the contractile migratory cells of Von Recklinghausen. * * *

The locality of tubercles also favors the presumption that their cellular elements are derived from the blood. They are generally developed along the course of the vessels. This fact has been noticed by many observers. Some, indeed, have assumed that they were developed from the sheath of the arteries or the cells of the capillaries. Others, it is true, have thought that they were proliferations from the epithelium of the lymphatics. And certainly formations similar, or identical with tubercles, especially the so-called reticulated tubercle, are seen along the tract of the lymphatic structure. Wagner has lately described these formations in an admirable monograph, and denominated them *lymphadenoms* Those cellular elements are certainly the same as those of the tubercular corpuscle. And whether there is a real difference between a tubercle and a lymphadenom or not, lymph corpuscles and tubercle-cells being identical, the occurrence of lymphoid neoplasms within the immediate neighborhood of lymphatic organs would in no way interfere with the assumption that the miliary granulations along the bloodvessels derived their cellular constituents from the blood. * * *

Another consideration, which I think will confirm the conclusion at which I have arrived, is the existence of tubercles in and between the layers of pseudo-membranes. I am well aware that this very fact has been claimed as a proof that tubercular cells are directly derived from connective tissue cells. But I could never see the force of such argument. For while it is true that false membranes are poor in bloodvessels, and that their existence cannot always be demonstrated, it by no means follows that, therefore, tubercles found in false membranes must be derived from some other source than the bloodvessels. For instance, the layers of pseudo-membrane, which agglutinated the spleen to the diaphragm, in the case I have reported, are thickly studded with tubercular formations, yet it is impossible to show them to be vascular; they are quite fresh, easily separated, the products of a recent inflammation. But, while they may not possess bloodvessels, they are themselves the product of exudation. The organized material and the organizing element came both from adjacent bloodvessels. And, assuming that tubercular cells are identical with the white blood cells, is it such a stretch of the imagination to believe that they came along with the inflammatory exudation and formed into tubercles, while the other elements of the blood were organized into membrane?

I must guard myself here against a misunderstanding. I do not wish to return to the theory of Broussais and Andral, and other French pathologists, and maintain that tubercles are an inflammatory exudation. For, while I think it most consistent with clinical observation and anatomic pathological fact to assume that tubercular cells are deposited during an inflammatory processs—an opinion which has also the support of physiological experiment, for the amœboid movement of the white blood corpuscles becomes exceedingly lively as soon as the temperature is raised to 39 or 40 degrees centigrade—it does not follow that therefore they are the products of inflammation; that is, that they are developed out of the blastema, which was supposed to become organized either into false membrane or pus. Tubercular cells may transude from the blood with inflammatory material, as Rokitansky supposed, without being themselves inflammatory in character. * * * *

But white pus, white blood corpuscles, etc. are essentially the same structures, and cannot be distinguished either by anatomical or physiological characters; in fact, are one and the same thing. There is a pathological cause, which in the one instance makes of a white blood corpuscle, a pus cell, and in another a tubercular cell, in the same way as a pathological process may make one man a dyspeptic and another an epileptic, and both be men still. Or, as in embryoligical development, there is a physiological tendency which causes one cell to become an astroblast, and another, of identical structure, to become a connective tissue corpuscle, so is there a pathological tendency which causes amœboid cell to become a pus corpuscle, and another a tubercular cell. And, although pus and tubercular cells are identical in healthy blood, and are transuded in inflammation, it is as improper to say that tubercles are only a collection of pus as it is to say that a leucæmic, or typhus tumor, or a glioma, is a collection of pus, notwithstanding that each is made up of round migratory cells. For the characteristic of a tubercle is not that it is made up of round cells and nuclei, but in that it is tubercle, a distinct neoplastic formation. For, as a glioma is a neoplasm, though its cellular element is largely made up of lymphoid cells, and these cells may have emigrated from the bloodvessels during a retinitis, which may have been the first starting point or occasion of a gliomatous growth, so is a tubercle a neoplasm, although its cellular elements may have escaped from the bloodvessels during a pneumonia or a meningitis.

In making experiments with blood-corpuscles, I have lately noticed that, if a drop of blood, freshly drawn, be placed in an alkaline solution of carmine, the red corpuscles lose their power of forming rouleaux; and the white corpuscles absorb the carmine, seek each other, congregate in little masses, and seem to become agglutinated to each other. I have here a drop of blood prepared for microscopic inspection. By careful focussing you can still see the whole field covered by fine little rings, which seem to form a delicate net-work, looking something like the cornea of a fly seen with a low power; this is nothing but the red corpuscles of the blood which touch each other by their edges. Scattered over this delicate, pale net-work you can see, here and there, little bright red cellular masses; these are the white corpuscles of the blood tinged with carmine. In specimens of pathological urine, I have also seen sometimes, under the microscope, that pus-corpuscles have a tendency to approach each other, and to form adherent masses.

Perhaps the formation of miliary tubercles takes place in a similar manner. The amœboid cells, when leaving the circulation, may bring with them a tendency to form into granulations; or the chemical or physical condition of the surrounding tissues may determine them to assume the form of minute nodules. We find, sometimes, with these semi-transparent bodies, others rather of a fibrinous structure ; they may represent a subsequent stage in the development of tubercularization. The lymphoid cells may have changed into fibrinous tissue by progressive metamorphosis. Virchow thinks that the fibrinous tubercle represents the first stage of tubercular growth, which has not yet unfolded itself into the full blown cellular tubercle. Langhans, on the contrary, looks upon this formation as the full development of the cellular tubercle, and describes it as consisting of three zones, formed by the transformation of round cells into fibrillæ. Whether such bodies can be distinguished from minute fibromas, or whether the one or the other be the earlier stage of a continuous development, the tendency of all tubercular deposits to a speedy decay has been universally recognized. Virchow says: "This structure, which in its development is most nearly related to pus, inasmuch as it has the smallest nuclei, and relatively the smallest cells, is distinguished from other more highly organized forms of cancer, cancroid, and sarcoma, by the circumstance that these contain large, voluminous corpuscles, with highly-developed nuclei and nucleoli. Tubercles, on the contrary, are always a pitiful production, and from the very outset perishable." And in this respect, also, tubercle betrays its origin and nature. The common characteristic of all formations in which the lymphoid cell-element predominates is to cheesy degeneration. Inspissated pus, a scrofulous gland, a lucæmic tumor, typhoid deposits, the exudation of a catarrhal pneumonia, all have a tendency to terminate in tyrosis. And, like them, the ordinary termination of tubercular deposits is in cheesy disintegration.

If any further proof were needed to establish the identity of tubercular cells with white blood-corpuscles, it would be furnished by the experiments lately made to ascertain the inoculability of tubercles. Many varieties of domestic animals have been used for that purpose. Tubercular and other pathological matter has been inoculated, and in a large percentage of cases resulted in tuberculosis. * * * *

Now, we know that the white corpuscles of the blood possess the power to swallow, and incorporate into themselves, finely—granular coloring matter. Cohnheim's experiments were based upon this fact. He injected analine blue. He knew the white corpuscles would absorb it; and when, afterward, he found pus-cells containing blue granules in the cornea and the mesenteries, where he had produced an artificial inflammation, he inferred the identity of pus-corpuscles and the colorless elements of the blood.

And if this conclusion is valid, then also must it be granted that the presence of aniline in tubercles, artificially produced by inoculations holding aniline, proves the tubercular cells to be identical with the white corpuscles of the blood. * *

Again, the views which I have advanced may enable us to estimate the degree of malignancy to be attributed to tubercles. The large coglomerate tubercle of the brain or other organ may prove fatal by mechanical pressure; but most persons suffering from tuberculosis die of phthisis or meningitis. It is the inflammatory process, of which miliary granulations or cheesy transformations are the accompaniments, which destroys the patient. I question if there is any inherent malignancy in tubercles as such. And instead of saying, with Niemeyer, that the worst thing that can happen to a phthisical patient is his becoming tubercular, I would say that a man might stand his tubercles, if they were not the accompaniments, or causes, or both, of a pneumonia, a meningitis, an enteritis, or a nephritis.

In closing this paper, I cannot repress the reflection that the adoption of these views would exert by far the most important effect upon us, as practising physicians, by throwing a ray of hope over the field of therapeutics. Virchow has pointed out that cheesy degeneration is the common but not necessary termination of tubercles. Some undergo fatty degeneration, and are absorbed. We have learned that cheesy pneumonia may terminate in recovery; and if there is no malignant omen inherent in tubercles, then cheesy pneumonia, even if undoubtedly of tubercular origin, may not necessarily be fatal. Such considerations will stimulate to new endeavors to devise means for the prevention of tuberculosis, or to limit its devastations. I do not believe that the consumptive will find a cundurango-tree any more than the cancerous patient. But I know that science is progressive, and that the limits of our art have not been reached. Nature may have no specifics; but the tree of the medical knowledge of good and evil will still blossom and bear golden and abundant fruit for the healing of the nations.

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ORGANIC BROMIDES.

The success that has attended the admistration of some of the inorganic bromides, the potassium bromide especially, has led me in the past few months to prescribe organic bromides, and, as the results of the experience have been in many ways satisfactory, I venture to record them. The physiological action of bromide itself—the element—is definite and well pronounced. In the old parlance it is an irritant, but the term does not strictly indicate all that it effects. To a certain extent a volatile body, it produces, when it is inhaled, a peculiar constricting action in the vessels which supply the secreting surfaces with their blood, so that inhalation of its diluted vapor makes the mucous surfaces with which it comes in contact dry and painful. After a time there is what may be called a reaction, due probably to the temporary paralysis of the vessels, and then there follows a free excretion of fluid, what the older writers would designate a flux or salivation, attended with some degree of local insensibility.

Applied directly, in the liquid form, to the body, and especially to a mucous surface, it acts as a direct destructive of tissue, not precisely as a caustic, but as a substance which leads to shrinking and slow death, with still more determinate local insensibility.

In combination with other elements, as with potassium, its direct action is modified but not removed. Passing through the tissues in a condition of fine distribution, and probably separating from its ally, it exerts on the nervous matter its special sedative influence, causing, if it be carried far enough, its direct paralyzing influence over the vessels which govern secretion, and leading to a certain extent to decreased sensibility of the nerves which govern common sensibility.

On the whole, bromine may be considered as a medicine which acts primarily on the sympathetic or organic system of the nervous system, and as a modifier of vascular tension; and this whether it be applied locally and directly, or generally and indirectly—*i. e.* in combination.

Thus we may rationally administer bromine with any other substance with which it will enter into chemical form of combination; we may trust to the development of its due independent action, without regard to the action of the substance with which it may be combined, and we may be satisfied that it will not materially interfere with the action of the agent with which it has been made to combine.

BROMIDE OF QUININE.—Bromide of quinine is formed by subjecting the alkaloid quinia to hydrobromic acid, or by acting on a salt of the alkaloid with bromide of potassium. The bromide of quinine is soluble, and, mixed with a simple syrup, is ready for administration as a medicine. I prefer to employ it as a syrup containing one grain of it in every fluid drachm. The dose of this syrup is from one to four fluid drachms.

BROMIDE OF MORPHINE.—Bromide of morphine is made by a similar process to that used for making bromide of quinine; morphine or a salt of morphine being substituted for quinine or a quinine salt. This compound also makes up best in form of a syrup, and the preparation I prescribe contains an eighth of a grain of bromide of morphine in a fluid drachm of simple syrup. The dose of this syrup is from one to four fluid drachms.

BROMIDE OF STRYCHNINE—Bromide of strychnine is made the same way as the two last-named preparations; strychnine, or a salt of it, taking the place of quinine or morphine. This, again, I always prescribe as a syrup, one thirty-second of a grain of the bromide being contained in one fluid drachm of the simple syrup. The dose of this syrup is from one to four fluid drachms.

COMBINATIONS.—I am in the habit of sometimes combining the preparations named above, in order to suit particular cases of disease. Far example, I combine the bromide of quinine and morphine in syrup, so that each fluid drachm of syrup contains a grain of the salt of quinine, with an eighth of a grain of the salt of morphine, or I combine the three salts, so that the fluid drachm of syrup contains a grain of the quinine, an eighth of a grain of the morphine, and a thirty second of a grain of the strychnine salt. Speaking generally of all these salts, I may state that, in action, the bromide throughout, in so far as its action is indicated, is eliminative and sedative. I am satisfied the bromide of quinine can be administered freely, when quinine itself, or any other salts of it, cannot be readily tolerated. I am equally clear that the bromide favors the sedative action of morphia, while it, at the same time, allays the astringency which morphia induces; and lastly, I am satisfied, from experiment, that bromide reduces, or rather subdues and prolongs, the action of strychnine on muscular motion.

NOTES ON PRACTICE.—I have prescribed bromide of quinine, and the other bromides named, in a large number of cases of diseases, and with results I did not fully expect. I will proceed briefly to indicate the leading facts that have occurred to me in the course of observation.

Bromide of quinine simply appears to me to be of good service in cases where certain special and persistent symptoms follow upon syphilis. I hardly speak now of the symptoms which patients themselves connect with that malady, but rather of those insidious symptoms which we, as medical men, who have lived long enough to have seen years of practice, trace back to a syphilitic basis, hereditary or acquired. A case of recurring rheumatism of this nature; a case of recurring ulceration of the fauces; a case of general nervous exhaustion with flying pains in the limbs, loss of appetite, general debility, loss of hair, and remaining thickening enlargement in the groin, a sequence of bubo; these have been instances in which the administration of the bromide of quinine, in doses of from two to three grains three times a day, has been more immediately and determinately beneficial than any other treatment I have either practiced myself, or seen practiced by my brethren of physic, in such forms of disease.

One great advantage of this preparation seems to me to be, that it allows one to give much larger doses of quinine than are common, and in frequent and continued doses without setting up the symptoms of headache, oppression, and singing in the ears, which make what has been called cinchonism. Thus we may give three grains of bromide of quinine, three times a day, without inconvenience, for several days, if a smaller dose does not suffice.

I have an idea that the bromide of quinine might be administered with advantage in the earlier stages of the contagious diseases, such as small-pox. It would, I think, allay the severe nervous symptoms which usher in these diseases, and so moderate the secondary symptoms that follow in train. Since I began to introduce the bromide into practice, I have not had an opportunity of putting this suggestion to the test, but I have sent some of the preparation to Mr. Marson of the Small-pox Hospital, asking him to give it impartial trial. I have also asked my friend, Dr. Broadbent, to make trial of it, at the Fever Hospital in all cases of acute febrile disorders. The results they obtain I shall hope to communicate in a future number of this journal.

BROMIDE OF MORPHINE.—Is a useful addition to the salts of the alkaloid. It seems to me that a smaller dose of the salt than is effective in the case of the other morphine salts produces as distinct a narcotic influence, and also that the dose may be repeated more frequently without producing those after-effects of an opiate which tell against repetition of administration. For instance, in a case of extreme depression of a nervous kind, attended with determinate insania, in which, owing to the headache and nausea it produced, the muriate of morphia had been replaced by chloral hydrate, as the latter remedy had been continued until it had become hurtful, I prescribed the fourth of a grain of bromide of morphia at bed-time with excellent results, producing sleep without production of nausea or other distressing symptoms. Knowing too well how apt we are to ascribe an efficiency to new remedies which belongs to other causes, I pen these first impressions on the action of this bromide with all due reserve. I write, in fact, mainly to secure the larger experience which will ensue when many acute observers are bringing the same remedy into daily use.

THE BROMIDES OF QUININE AND MORPHINE.—In combination constitute a remedy of which in cases suited for their administration, I cannot speak too favorably. Four classes of disease seem to me to be specially benefitted by this compound, viz: neuralgic fever, cerebral irritation, diabetic phthisis, and extreme acute attacks of intermittent pulse, the result of organic nervous shock. In acute neuralgia I administer a drachm of the syrup of bromide of quinine and morphia to an adult every two hours until the pain is altogether removed, and am able to report not only that pains can be effectually removed by it, but that the medicine exerts no derangement of the body that lessens its value. It calms pain without inducing deep narcotism, it interferes little with the secretions, it rarely causes nausea, and it interferes little with the appetite. In the case of an esteemed member of our own profession, who has been for twelve months under my care, suffering from right hemiplegia, the most distressing symptom I have had to meet has been intense sciatic neuralgia. After a run of all narcotic tonic measures, I found happily in the bromide of quinine and iron, a remedy which has now for three months held him free of suffering, and, as a consequence of freedom from pain and sleepless weariness, has led to a distinct improvement in his general health.

In diabetic phthisis I have administered the bromide of quinine and morphia with the same freedom. Under its influence, in these cases, the quantity of sugar and of fluid excreted by the urine notably decreases, cough is relieved, the appetite and digestive power are improved, and recurrent hectic is held in abeyance more certainly, I think, than by any other remedy or combination of remedies with which I am practically conversant.

In a case of intermittent pulse, where the lapse in the heartstroke was painfully frequent, where there was continued feverish restlessness, and a fear of going to sleep that more than all sustained the irregular nervous action, the symptoms gave way at once under a few doses of bromide of quinine and morphia in a manner that was as gratifying to the prescriber as to the patient. The purpose of the medicine, in a word, was promptly fulfilled, and as demonstrably as if it had afforded mechanical instead of therapeutical relief. In a second case of intermittent pulse, where the intermittency is the prelude of great mental excitement, followed by depression and melancholia, the remedy has exerted a similar beneficent influence. It induces rest and sleep without the production of deep narcotism and without deranging digestion.

The Bromide of Strychnine—has rendered unquestionable service in a few cases of dyspepsia with and from deficient nervous control over the vascular supply of the organs concerned in the process of digestion, in cases of partial organic nervous paralysis of the ventrical division of the organic nervous system. In such cases of disease, and they are by no means uncommon, where, when the body is without food, there is a knowledge of hunger without the true sense of it; when there is congestion of the liver, and suppressed secretion to-day, accompanied by giddiness and irritability and præcordial oppression, with diarrhea to-morrow, and then constipation; in these cases the bromide of strychnine in the proportion of one thirty-second of a grain may be given three times daily with marked advantage, an alterative being at the same time occasionally added.

In some mixed cases of nervous pain, with want of organic nervous action in the digestive organs, I have combined the bromide of strychnine with bromide of quinine, and in many cases of this nature I have prescribed the three bromides with good results.

Syrup of the bromide of quinine, and strychnine, and syrup of the bromide of quinine, morphine and strychnine, will both, I believe, become favorite compounds with the profession, finding their place as Eastin's syrup of the superphosphate of iron, quinine, and strychnine has found its place in the list of tried and approved medicaments.

One other point of practice remains to me only to note. In cases where there is much dryness and irritability of the mucous membrane of the pharynx and larnyx, the bromides are not commendable; the bromine increases the irritation. This was so marked in a case where there was a small ulcerated surface in the larynx, that I had to stop the administration altogether, the smallest dose producing violent and long continued irritative cough and spasm.

Hydrobromic Ether.—Amongst other bromides that have medicinal qualities is hydrobromic ether, bromide of ethyl—

C_2H_5Br. This ether is a light volatile liquid made by distilling four parts of powdered bromide of potassium, with five parts of a mixture, consisting of two parts of strong sulphuric acid and one of alcohol, having a boiling-point of 104 degrees Fahr., a specific gravity of 1,400, and a vapor density of 54, taking hydrogen as unity. It is nearly insoluble in the blood.

This ether is of interest, from the fact that the late Mr. Nunnely, of Leeds, proposed and used it as a general anæsthetic, and came to the conclusion that it was the best and safest of all known anæsthetic substances. A few weeks before his death I had the pleasure of visiting Mr. Nunneley, and in the course of our many conversations on scientific subjects, he spoke again of his experience with the bromide, and begged of me to submit it to a fair and strict investigation. I have carried out his wish, and can report upon hydrobromic ether, that it is, as Mr. Nunneley said of it, one of the safest of general anæsthetics. An atmosphere containing from eight to nine per cent. of the vapor of the bromide of ethyl, causes, when inhaled, entire destruction of common sensibility, rapidly, and safely. The breathing remains tranquil, the pulse quiet, the expression good; the transition from the first to the third degree of narcotism is moreover, so rapid that the second degree—degree of muscular excitement—is scarcely recognizable. There is no sign of apnœa; and when, in animals, the inhalation is carried to the extreme, the resistance of the heart to the paralyzing action of the narcotic is good. As might be expected from the low boiling-point of the ether, 104 degrees Fahr., and its insolubility in the blood, it is rapidly eliminated from the body when it has been withdrawn, so that the period of recovery is short, from three to five minutes.

When inferior animals are made to sleep into death by the vapor of the bromide of ethyl, the heart is found, directly after death, with blood on both sides and free of vascular congestion. The color of the blood on each side is natural, and the lungs are left charged, without being surcharged, with blood. The coagulation of the blood is natural. The heart retains its irritability for as long a period of time as after death from methylic ether.

Mr. Nunneley's favorable opinion on the action of hydrobromic ether is therefore confirmed in respect to essentials, but I am not thereupon inclined to suggest that it should be employed in place of other and better known anæsthetics. For, irrespectively of the trouble and cost of making the ether, it has certain faults which are opposed to its general employment. It causes irritation of the throat in some cases, and occasionally vomiting; added to these objections, the fluid easily undergoes change on exposure to the air, with liberation of free bromine, when it becomes difficult, if not dangerous, to inhale.—*Medical and Surgical Reporter.*

MEDICAL MUTUAL IMPROVEMENT SOCIETY, CANADA.

Dr. Mack enquired if a remarkable form of aphasia had been observed in patients under the influence of hydrate of chloral. Dr. Oille had observed that effect.

Dr. Comfort also spoke of the marked difference upon the sensorium of the action of that drug from the various narcotics —especially opium.

Dr. Sullivan asked if the other members agreed with him in doubting the occurrence of vaccino-syphilis. He had seen very grave symptoms produced from vaccination, accidentally, with the "grease" from horses, and from a diseased condition existing in an active form in the animal from which the virus is obtained; but he did not believe that constitutional specific disease could be so propagated when in an inactive state.

He considered recourse to bovine vaccination, after the transmission of the virus, a limited number of times, and when vaccination with good lymph or crust had failed, very advisable. Dr. Comfort was of the opinion that specific disease could be propagated from the use of vaccine virus.

Dr. Oille reported a successful case of acute rheumatism treated with Actæa.

PERI-UTERINE ABSCESS.

Dr. Mack remarked that he had found the Abscesses, usually called "pelvic" or "iliac," the most frequent in occurrence, the most important to diagnose, and the most necessary to be well understood of any purulent collections within the abdomen—a region where all suppurations are of peculiar significance. He spoke now of Abscesses which form in connection with the uterus and its appendages, both in the puerperal and non-puerperal states.

In the latter the collection seeks an outlet more usually *per vaginam aut rectum*, and should have as early relief, by surgical means, as possible. In the former it may point, if externally, below Poupart's ligament, or higher up in the iliac region, or in front above the pubis, or into the perineal region.

Internally, it fortunately seldom happens to burst into the peritoneum, but seeks an exit as above stated—through the vagina, rectum, bladder, or colon. Of all modes of discharge he believed *per vaginam* to be the most favorable, and when the exploring trocar shows that it can be reached from the outlet, aspiration, or some contrivance of that nature, should at once be made use of to suck it out. If it forms again the cavity should be carefully washed out (after previously enlarging the opening by dilating with a proper forceps, or sponge tent if necesary) with a weak solution of carbolic acid.

The same mode of procedure was advisable when the drain was not practicable *per vaginam*, but still within reach. There is no Abscess requiring to be opened more promptly than these peri-uterine ones. Dr. M. had early seen the necessity of this, when called in consultation to a puerperal case when fistulous openings had formed in the perineum and vagina, and ultimately into the bowel, terminating, after six months of great suffering. in death. There is a suppurative constitution which must often have fallen under the notice of the gentlemen present, generally occurring in the strumous habit; such patients are liable to pelvic Abscess, and generally do well if the Abscesses be promptly opened.

The subject could not be fully entered into separately from pelvic cellulitis, in connection with which he hoped at an early date to bring it again under the notice of this society.

Dr. Sullivan then read the following reports of the clinical observation of the disease occurring in his own practice:—

"I propose laying before the meeting the report of a couple of cases of pelvic Abscess, which lately came under my observation, and in which I had the good fortune to be associated with two of the gentlemen present.

Pelvic abscess is most important to the diagnostician. 1st, on account of its insidious approach and progress, frequently escaping diagnosis until it has produced serious constitutional results and pathological changes. 2ndly, In its return again, after its apparent cure, to exhaust still more the strength of the unhappy patient who, after months of suffering, congratulated herself on the prospect of an uninterrupted, if not speedy convalescence.

3rdly. The inadequacy of remedies to palliate until nature in her tardy progress gives relief by elimination, the exhausted patience of friends and doctor, and the possible termination of the case from exhaustion, or some untoward complication.

The essence or predisposing cause, seems to be due to an unhealthy condition of the blood, as erysipelas and effusion of fibrine or other morbid product into the cellular tissue surrounding the uterus and ovaries, excited by some local irritation, such as the puerperal state, or injury to the pelvic organs.

Berneets and Goupil state that it is a common disease, and may be produced by menstrual derangements, blennorrhagia, etc., and they state that the effusion is owing to pelvic-peritonitis.

Dr. G. Hewitt considers it due to super-peritoneal effusion, although the peritoneal substance may be affected.

Dr. West calls it "acute purulent œdema."

Virchow styles it, diffuse puerperal metritis and peri-metritis.

Dr. Churchill is of opinion that inflammation of the uterine appendages is generally combined with more or less inflammation of the peritoneal sac.

The experiments of Konig are interesting, as they tend to show the probable course of the effusion, and account for the tedious character of the disease; he injected the cellular tissue after death in labour, and found that air or water travels along the psoas and iliacus into the pelvis proper, and starting from the antero-lateral portion of the cellular tissue where the body joins the cervix uteri, fills the tissue of the lower pelvis laterally to the uterus and bladder, and along the round ligament to Poupart's ligament, thence backwards and outwards to the iliac fossa, from the posterior part of the base of the lateral ligament; the part first filled is the fossa of Douglas, thence it may pass in front of the bladder, and extend upwards between the peritoneum and abdominal fascia. The following case is quite typical and had an erysipelatous origin as proved by the development of erysipelas in the child.

I attended Mrs. W. æt. 38, in her seventh confinement, on Nov. 2, 1870. She had a natural labour of three hours duration. On the night of the 3rd, she was attacked with severe rigors, great pain in the lower part of the abdomen, quick pulse and irritative fever. Applied warm fomentations to restore suppressed lochia, and allay pain, prescribed Pulv. Doveri gr. viij Ant. Tart. gr. $\frac{1}{8}$ every four hours. Next day lochia had returned slightly, pain was relieved; prescribed a mild purgative to be followed by Quinia Disulph. She convalesced rapidly, and I did not again see her until the 27th, when I was called to treat the infant for phlegmonous erysipelas of the face and arm; I prescribed Sol: Ferri. to child as a local application, and I ordered quinine for the mother with Tr: Ferri. On Dec. 1st, I lanced the child's arm which discharged pus freely. The mother attended but did not suckle the infant; she looked pale and worn, and complained of dorsal pain, and soreness over the abdomen; rest was enjoined, and ordered Sol. Amm. Mur. and Tr. Hyoscyamus, warm fomentations to abdomen, Morphia Sulph. at bed-time. I again saw her about the 28th Jan. She complained of great pain in the right iliac region; appetite very bad; hectic symptoms; weak, rapid pulse; attributed her rigors to ague, insomnia and night sweats. On examination a hard circumscribed tumor could be detected in the right iliac region intensely painful, and as hard as a stone; no heat of vagina; can move the uterus without causing pain; micturition frequent; bowels regular; no drawing up or pain of affected side. Ordered warm fomentations; poultices of slippery elm; warm water enemata and warm vaginal injections of infusion of slippery elm, quinine, generous diet, and stimulations. This state continued till Feb. 12, when in consultation with Dr. Goodman, who coincided in the opinion that a pelvic abscess had formed, an early opening was decided upon, Sulpho-carbolate of quinine with decoction of cinchona were prescribed, and enemata of cod-liver oil, and a blister over the tumour. On the 29th Feb., a subcutaneous incision near Poupart's ligament was followed by the discharge of about 6 oz. of healthy pus with the subsequent drainage of about 2 oz. of pus into the poultices; the abdomen was bandaged, and poultices of slippery elm persevered with, and she improved until about March 15th, when a return of the symptoms took place. The abscess was again opened with a trocar near the first incision, and the contents were well pumped out with an exhausting syringe. From this time she convalesced slowly, and on the 3rd of April, her recovery was complete. I would remark that in this case, chloral in doses of 30 grains proved ineffectual as a hypnotic.

Mrs. C., mother of six children, enjoyed good health until three or four days prior to January 31st, 1871. Complained of nausea, want of appetite, pain in the back, bearing-down, difficult micturition, bowels costive, tongue furred, slight fever, pulse 85 and weak.

On a vaginal examination I discovered a tumour in the recto-vaginal fossa; posterior wall of vagina depressed and thrown into rugæ; anterior wall drawn backwards; os uteri thrown up; uterine canal directed forward; bladder slightly distended; could be felt above the symphysis pubis. On examination per rectum; found a soft doughy tumor. Administered castor-oil and an enema of soap and water, which produced copious alvine evacuations. She objected to catheterism, and as she stated that she made a sufficiency of urine, I did not press the matter, but proceeded to reduce what I supposed to be a retroverted uterus by the usual manœuvres; not succeeding I proposed consultation with Dr. Mack.

The following morning, in consultation with Dr. Mack, Mrs. C., after evacuation of the bladder and rectum, was placed under the influence of a mixture of ether and chloroform, and having placed her with her hips at the edge of the bed, in the lithotomy position, the os uteri was seized with a single toothed forceps and drawn downwards, while firm pressure was made upwards per rectum. No change occurring in the state of affairs, the uterine sound was introduced, and the question of pregnancy being decided in the negative, it was concluded to open into the tumor per vaginam with a trocar. As the patient was very intractable this operation was postponed until the following day.

On the following morning Dr. Mack introduced an exploring trocar and found the tumor to be pus. A trocar and canula with stopcock, used for evacuating the pleura in hydrothorax and empyema, was then plunged into the mass *per vaginam*; the exhausting syringe having been attached, about a pint of pus was drawn off. Vaginal injections daily were directed, and pills of Sulpho-carbolate of Quinine were prescribed.

No further surgical interferences was found necessary, and in about three weeks she was convalescent.—*Canada Lancet.*

CASES IN ELECTRO-THERAPEUTICS.

BY ALEXANDER MURRAY, M. D., OF NEW YORK.

HYDROCELE.—John McCaffrey, aged 40 years, ship carpenter, applied to me on the 17th August, 1869, for treatment of a hydrocele of the right side of the scrotum. He stated that two years ago, while at work in a shipyard, he was struck accidentally with a splinter of wood on the testicle. Inflammation followed. About four months before I saw the man he noticed that the scrotum grew larger and softer, and caused a dragging pain in the side.

I tapped this hydrocele seven times in eighteen months, the quantity of fluid drawn off varying, at each operation, from 27 oz. to 17 oz. He was unwilling to submit to any operation for a radical cure, lest he might lose the proceeds of a few day's work. He wore a suspensory bandage to support the scrotum. On the 9th May, 1871, I introduced a trocar and canula for the eighth tapping; withdrew the trocar, and before any quantity of thr fluid had escaped from the sac I inserted a platina wire as large as the trocar, connecting it with the negative pole of the galvanic battery, and with the positive sponge electrode over the scrotum, I employed a current, gradually increasing it until it produced pain. After thirty minutes I allowed the accumulated fluid (17 oz.) to run off, and then continued the use of the current for five minutes longer.

More than six months have elapsed, and I find upon examination that there has been no reaccumulation of fluid, and that the right side of the scrotum is only a little larger than the left, with no sensation of weight or pain. There was but slight œdema for two days after the operation.

A colored man, 43 years of age, was sent to me in July. 1871, by Dr. K. B. Martin, to try the effect of electricity upon a hydrocele of the right side of the scrotum, with inability to perform the marital act satisfactorily. He stated that in early life he had greatly abused his generative organs, and that about six years ago he had contracted syphilis. He had been under treatment by several physicians for a year previous to his visit to me, without deriving any special local benefit. He wished me to take his case in charge and try what I could do for him without tapping or using cutting instruments. I commenced treatment with labial galvanization to the scrotum, increasing the current to as much as he could bear for thirty minutes, and repeated the application every third day. After the third operation he felt satisfied that electricity was benefitting him, and as there was a manifest diminution of the effusion, he requested that a speedier method of cure might be adopted. After local anæsthesia with ether spray I inserted two insulated platina needles, one (+) into the lower, the other (—) into the upper part of the scrotum, well into the middle of the sac, without allowing the points to touch each other, the practical point being to act upon the tunica vaginalis and the fluid accumulation in its sac. A mild current was employed and increased gradually until the patient complained of distension and pain (in his own words) of a burning or boiling sensation in the scrotum. To relieve this unpleasant feeling without removing the needles, I introduced a canulated steel needle half an inch from the upper needle, passing obliquely into the sac, so as to *touch the upper needle.* I then withdrew the canulated needle and allowed the hard rubber canula to remain, thus permitting the escape of the nascent eliminated gas and some of the liquid, with the result of producing immediate relief. It is evident, from the effect produced in this case by the use of the canula, that the current can be continued much longer, and with little or no pain to the patient, than without it. It is, therefore, a mode of proceeding I would recommend my professional brethren to adopt, and report with what result. Some soreness and œdema were complained of for the remainder of the day and night. On examination, two months subsequently, I found both sides of the scrotum equal in size. The man stated that the fluid had entirely disappeared by the second day after the operation. Four applications of general and local faradization were attended with marked increase of the sexual power.

A child, 18 months old, was brought to my office for treatment of a swelling in the left groin, which was recognized as an encysted hydrocele of the cord. Ether spray was used before the introduction of two steel insulated needles, with gilt points, connected with the negative pole of the battery. The current of ten cells was employed for fifteen minutes. On the next day the constant current, without the needles, was applied. In three days the fluid accumulation was entirely absorbed.

FISSURED NIPPLES.—The constant current was used in four cases of excoriated and fissured nipples in nursing women. A small nipple electrode of silver or platina was applied to the abrasions, and into the fissures on or around the nipples for a few minutes. A mild current was used and continued until the diseased part presented a greyish ash color; subsequently it was exposed to the air for thirty or forty minutes, to harden or oxidize the affected part. Any moisture that remained was dusted over with dry oxide of zinc. Invariably in the course of twenty-four to forty-eight hours the process of healing was complete.

FISTULA IN ANO.—In August, 1871, John Connor, who, for nearly eighteen months, had been suffering from a fistula in ano, applied to me for treatment, requesting a cure if possible without a surgical operation. I introduced a small probe of platina wire into the fistulous canal, and a wooden scoop into the rectum as a point d'appui for the extremity of the probe. During the operation a galvanic current of fifteen cells, steadily increased, was allowed to pass for fifteen minutes. The battery having been freshly filled that day, the probe became heated so rapidly that I was compelled to desist from the application sooner than I had wished. However, I was gratified to find that, at the expiration of five days, the fistula had entirely healed.

ULCERS OF THE LEG.—In the treatment of ulcers of the lower extremities, I have almost invariably applied the positive pole of the battery, through a medium of a disk of platina, silver, or nickle, to the ulcer itself, closing the circuit, and by means of the wet chamois electrode close to, and around the diseased part. The disk I have used is about one eighth to one-twelfth of an inch in thickness. I cannot recommend pure nickel for this purpose, as it is difficult to clean and polish it, as needed before it can be used again. Platina is decidedly preferable, as it is the cleanest and best metal.

A man, aged 30 years, with seven ulcers upon the lower third of the right leg, applied to me for treatment during the month of October instant. These ulcers were of two year's standing, and as the case appeared to me to be one favorable for testing the relative merits of the poles, the size and condition of each ulcer being as nearly as possible uniform, I selected four for treatment by the positive and three by the negative pole. I first cleansed the sores with a piece of sponge wet with a weak solution of chlorinated soda, and having *partially* dried them I applied the flat-disk electrode as before explained. The superiority of the flat disk over the button or ball-shaped electrode is evident, when we consider that ulcers heal from the sides first rather than from the bottom. I applied the galvanic current as strong as could be borne to each ulcer, for the space of five minutes, occasionally wiping away any discharge. This treatment was repeated every third day. In two weeks the healing process, in the four under the influence of the positive pole, was considerably in advance of that of the three under that of the negative. In general I do not limit myself to any specified time in the galvinization of ulcers, but continue the application of the current until they present the *appearance of having been slightly seared with the actual cautery.*

DETECTION OF A NEEDLE IN SOFT TISSUES.—Ann F., aged 26 years, seamstress, a slight-built and delicate woman, called on me to cure her of an inability to extend or raise her left hand. She had experienced attacks of hysteria during the last eight years. Catamenia regular, but scanty. Faradization was employed. In a few minutes she screamed and begged me to desist. On looking at the hand the abductor muscles of the thumb were tense, and a sharp-pointed body projected beneath the skin. I asked her what she supposed it was. She stated that about six years ago a needle was broken in her hand, and could not at the time be extracted. She had forgotton all about it until her attention was attracted to the painful part. I made her hold the electrode while I got a scalpel to cut over the foreign body. I extracted the eye-half of a No. 8 needle, bright as when new. The hand required no further treatment than rest for a few days.

Another case of some interest presenting itself, was that of a boy, 8 years old, who had been bitten by a dog on the right buttock. Ten minutes, probably, had not elapsed when I saw the lad. The bitten part was about an inch and a half in diameter, without laceration of the cuticle, but presenting a purplish black-colored contusion. I applied the galvanic current with wet chamois covered electrodes directly to the part. In five minutes the discoloration had entirely disappeared. On the next day a slight greenish stain was all the evidence that remained of the injury.

The following is a short epitome of nine cases of deficient secretion of milk, in which local faradization was applied directly to the mammary gland.

In four the electro-magnetic current was applied, with negative results.

In two the magneto-electric current was applied. In one of these the result was negative; in the other success attended after daily application for sixteen days.

In three, the magneto-electric current was also applied, with the result of producing a good supply of the lacteal fluid so long as the use of the current was repeated daily; but the secretion ceased if it was omitted for twenty-four hours.

One woman, to whose breast I applied the galvanic current, gave the breast to her child immediately after. In less than an hour the child was attacked with severe vomiting, purging and convulsions, although it had been previously remarkably healthy. I attributed the sickness to an electrolytic change in the milk, the effect of the galvanic current.

I have a variety of electrical machines by different makers, but latterly I have used the newly-improved induction instrument, and the portable galvanic battery, made by the Galvano-Faradic Manufacturing Co., New Yoak. I find them reliable, efficient, and better adapted for the various purposes of Electro-Therapeutics than any other with which I am acquainted.—*Medical Record.*

EXTIRPATION OF THE KIDNEY.—Prof. Simon, of Prussia, has successfully extirpated the left kidney entire, from a lady residing in Savannah, Georgia. This makes the third operation of the kind Prof. Simon has performed successfully.—*Med. Record.*

COD OIL—PEPSINE—PANCREATINE.

Every practitioner has been disappointed in the failure to secure any benefit from cod liver oil, in cases presenting the strongest prima facie evidence of the adaptation of remedy to disease. Very often the oil remains unchanged in the stomach, and continues for many hours to rise in the mouth. Here it not only fails to do good, but is positively injurious by retarding digestion and destroying what little appetite the patient may have had. A lack of pepsine may cause this difficulty—the office of pepsine in regard to oily substances being, as far as appears, to dissolve the albuminous cell-wall, leaving the oil to be acted on, after it has passed from the stomach, by the pancreatic secretion. It is easy to replace the deficiency in the gastric juice by the administration of pepsine.[*] But there may be another link in the chain wanting. The fatty granules require to be acted on by the pancreatic secretion in order to perfect a series of processes by which the oil is assimilated and rendered remedial. The pancreatic secretion may be deficient; and here the want may be artificially supplied by the administration of pancreatine. With or without reference to the cod liver oil, those two substances are often very useful in feeble or disturbed digestion. We can not always determine whether the stomach or small intestine is the seat of trouble, or whether both are implicated. If the stomach, pepsine may be the agent required; if the intestines, pancreatine. Experiment alone will settle the question. Often both are at fault, and here the two substances may be employed conjointly. It has been suggested to administer the pepsine first, and in an hour or two the pancreatine, after the pepsine has had time to do its work. But there is often trouble and uncertainty in this plan. There can be no reasonable objection to the inhibition of both together.

Pepsine is well known to the profession, having been in general use for many years. Pancreatine is of more recent introduction, and has not been so extensively employed. We believe it is not properly appreciated. In our hands it has certainly done much good in certain cases of indigestion, or perhaps it would be better to say, of uncertain and irregular digestion, especially in persons of morbid nervous sensibility. It is particularly valuable in feeble digestion attended with occasional diarrhea—cases in which the diarrhea appears to be excited by the accumulation of undigested food, and in which it alternates with constipation or intestinal lentor. Here a tea spoonful of Wine of Pepsine taken immediately before eating, and a tea spoonful of Wine of Pancreatine half an hour or less after eating, will often be followed by the most gratifying results. Under this treatment anorexia will disappear and give place to appetite and enjoyment of food, and regular defecation will be established, so that the annoying exhibition of aperients and astringents may be entirely dispensed with.

The ingenuity of pharmacists has devised a large number of preparations of undoubted excellence, combining not only the two agents above named, but bismuth also, and cinchona, and strychnia. The pancreas of the calf is the common source of supply, the juice being evaporated at a low temperature to a syrupy consistence and then mixed with dextrine and dried. This forms the powder called *pancreatine*, of which the different preparations are made. The principal preparations are Wine of Pancreatine; Elixir of Pancreatine; Syrup of Pancreatine; Troches of Pancreatine: Wine of Pancreatine and Pepsine; Elixir do. ; the same with Bismuth; the same with Calisaya; Elixir of Pancreatine and Bismuth; Elixir of Pancreatine, Bismuth and Strychnia; Wine of Pancreatine and Pepsine. Other combinations also have been contrived, all of them possessing the properties belonging to the respective ingredients, and adapted to the most fastidious taste of both physicians and patients. A good preparation in the simple form is the Emulsion, which may be used in the same manner as the powder, as a basis for the various compounds; or it may be used in the simple form, though not pleasant to the palate in this way.—*Pacific Med. and Surg. Journal.*

THERAPEUTIC ACTION OF QUININE.

M. Monteverdi, after having made a series of investigations with sulphate of quinine, has arrived at the following results:

1. Quinine exercises a general tonic influence on the organs of the body, and especially upon the uterus.

2. Within half an hour after its administration, transient painless contractions, which gradually become longer, stronger, intermitting like ordinary labor-pains, and last for about two hours.

3. To effect the expulsion of the fœtus, and of the placenta, about four-grain doses are the most appropriate.

4. Quinine is to be preferred to the secale cornutum, on account of its harmlessness, both as regards mother and child, on account of the certainty of its action, on account of the regularity and the natural character of the pains occasioned, and also because it is free from danger at all periods of gestation, in contraction of the pelvis, and in incomplete dilatation of the os, and because it can be applied before the discharge of the amniotic fluid.

5. It is further useful, (*a*) in the hemorrhages of pregnancy; (*b*) in amenorrhœa, consequent on torpid conditions of the uterus; and (*c*) in puerperal fever.

6. On account of its tonic properties, quinine is indicated in all affections of the digestive organs of the urino-genital system, which are dependent upon atony of the different organic constituents.

7. If pregnancy be accompanied by any disease calling for the administration of quinine, great caution should be used, lest abortion or premature delivery be provoked.

8. If the action of the quinine has become too energetic, opiates should be prescribed, and quinine, as a general rule, is contra-indicated in hysteria.—*La nuova Liguria Medica*, and *Aerztliches Literaturblatt*, No. 7, July, 1871.—*London Practitioner*.

THE SESQUICHLORIDE OF IRON (Ferri Chloridi U S. P.) AS A PROPHYLACTIC IN ACUTE RHEUMATISM.

Dr. Anstie states (*Practitioner*, September, 1871), that "a considerable number of persons present themselves in my out-patient room, in the course of twelve months, suffering from the preliminaries of acute rheumatism: it is one of the small group of really serious diseases (amongst a much larger variety of trivial complaints) which occupy one's attention in out-patient practice, and was formerly a matter of great dissatisfaction to me, from the apparently almost total failure of remedies to produce any effect. Whereas threatenings of gout could be very commonly dealt with in such a manner as to prevent the attack, or render it trivial, the onset of acute rheumatism seemed never to be averted by drugs when once the prodromata had reached the stage which pretty frequently presented itself before me, viz: a more or less obscure aching of several joints, * a yellow sallowness of face, with patches or streaks of dusky redness, blanket-like furring of tongue, an oily moisture of skin, a distinct though slight elevation both of pulse and temperature, and a certain anxiety of respiration. So far as the history of such patients could be traced, they were almost invariably found to have developed the full symptoms of the acute disease, and very often (after once seeing them in the out-patient room) one encountered them, a few days later, in a ward of the hospital.

"Very different have been the results of treatment since I adopted the use of full doses of sesquichloride of iron from the first moment of such cases presenting themselves. During the past twelve months I have done this fully. Whenever a patient has presented himself with articular pain and slight fever that were plainly of the rheumatic and not of the gouty type, he has been at once placed on thirty or forty minim doses of the tincture of sesquichloride, from three to six of which, according to the severity of the symptoms, have been given in each twenty-four hours. I have several times called the attention of studenst to the fact that (unlike what used to happen) these cases now re-appear in my out-patient room on my next hospital day; and, in the great majority of instances, declare themselves greatly relieved. Since July, 1870, I have treated twenty-nine such patients, of whom thirteen had previously had one or more regular attacks of rheumatic fever, for the symptoms now referred to, with the full doses of iron; and of these, seventeen have lost all pyrexia and spontaneous joint-pain within the three or four days elapsing before my next day at the hospital. Only three have, under my own eyes, developed the full acute disease, and been sent into the ward. Of the remaining nine, four disappeared altogether from my knowledge, so that I cannot say what became of them; the other five, though their symptoms were checked, remained in a state of what might be described as sub-acute rheumatism during from ten to twenty-two days.

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* I have, on the contrary, known pain in or near a single joint (sometimes simulating neuralgia), with slight fever, sallow skin, etc., yield to iodide and bicarbonate of potash.

"I cannot help remarking, with emphasis, on the contradiction to old ideas which is involved in the effect of this iron treatment upon the furred tongue. Of course it becomes speedily blackened; but so far from the furring increasing, or the dryness and foul taste becoming more pronounced, what commonly happens is, that, after a few days, the epithelial coating falls off in considerable patches, and the tongue soon cleans altogether. I believe the prophylactic treatment of rheumatism by the sesquichloride to be one of the most valuable recent improvements in medicine."—*American Journal of the Medical Sciences.*

MEDICAL GLEANINGS.

CARBOLIC CERATE.—Charles Boehme (*American Journal Pharmacy*), says the following is an excellent formula: — ℞ Adipis, ʒx.; ceræ albæ, ℥v.; terebinth. Can. ʒi; acid. carbolici, ʒi. Melt the lard and wax together, add the balsam fir, and when it begins to cool, stir in the carbolic acid. The addition of balsam fir to this preparation corrects the disagreeable odor of the acid, and renders it slightly adhesive.

OXYGEN GAS IN PULMONARY DISEASES.—Dr. H. M. Read reports in the N. Y. *Medical Journal* a series of cases of lung disease, in which the inhalation of oxygen diluted with common air was added to other treatment. In some instances great benefit accrued, and in others none. Experiments similar in kind were tried in England by Dr. Beddoes and others nearly a century ago. The Doctor was very sanguine that he had discovered at last a cure for many cases of consumption. But for some reason the practice was abandoned, to be revived now as a novelty.—*Pacific Medical and Surgical Journal.*

Liebreich's Operation for Extraction of Cataract.—Prof. Leibreich says that during the four years past he has in more than three hundred cases employed the following method for extracting cataract in preference to the one recommended by Graefe, which he had formerly employed, and finds it to be, in many respects, its superior. The incision of the cornea is to be made with the smallest possible Graefe's knife in the following manner: "Puncture and contra-puncture are made in the sclerotic about one millimetre beyond the cornea, the whole of the remaining incision passing with a very slight curve through the cornea, so that the centre of it is about one millimetre and a half distant from the margin of the cornea. This incision can be made upwards or downwards, with or without iridectomy, and the lens can be removed through it with or without the capsule. If, as I now practice, the extraction is made downwards without iridectomy, the whole operation is reduced to the greatest simplicity, and does not require narcosis, assistance, elevator, or fixation; and only two instruments, Graefe's knife, and one cystotome with Daviel's spoon (*Br. Medical Journal*, No. 570). —*Medical Record.*

External Application of Chloral Hydrate.—Dr. Charles S. Strother, Barnesville, Ga. (*Atlanta Med. and Surg. Journal*), calls the attention of the profession to the external application of hydrate of chloral as a powerful and speedy counter-irritant, and, to a considerable extent, a local anodyne. The idea first suggested itself to Dr. McDowell in 1870, when he accidentally applied a small portion of chloral to his own face, instantly producing a burning sensation. It has been used with good results in facial neuralgia, pleurodynia, rheumatism, gastralgia, in uterine and ovarian pains, in advanced phthisis, and in relieving persistent nausea and vomiting. The mode of applying the chloral is as follows:—Place ℈ i. in a plate or a saucer, add water to make a saturated solution, and then apply with the tips of the fingers, with slight friction, over a space as large as the palm, or *pro re nata.* Should the burning be too intense, the parts may be sponged off in a few minutes with a cloth wrung out of warm water; and then apply glycerine with a little spirits camphor, or the glycerine alone, olive oil, or sweet cream.

Cloth Tents.—Dr. Logan, of Atlanta, Ga. (*Atlanta Medical and Surgical Journal*), exhibited to the members of the Atlanta Academy of Medicine some cloth tents made by Dr. V. H. Taliaferro, of Columbus, Ga. The advantages claimed for the cloth over the sponge tents are the following:—1st. Its cheapness, simplicity and easy preparation. Any one, with a little practice, can make them. The strips of cloth should be from one-half to one inch wide, and rolled between the thumb and forefinger. To make them sufficiently firm, they require to be rolled very tightly. 2nd. The easy and thorough manner in which medication may be made to the cavity of the uterus and cervical canal—separately, or to both at the same time. The point of the tent may be alone medicated, if it is desirable, or that portion only coming in contact with the cervix. 3d. It does not produce irritation and pain, and hence, is free from the serious, and sometimes, fatal inflammatory results of the sponge tent. It is soft, flexible, innoxious, and readily adapts itself to the shape of the uterine cavity. 4th. The large amount of medicament that may be thus applied acts so gradually on the uterine surface as to create no disturbances, such as uterine colics, inflammations, etc., that so frequently occur with the sponge. 5th. Its easy removal from the uterus, which the patient may do himself, if desirable, by means of the thread attached to the distal extremity. The removal of the sponge is often difficult and painful.—*Medical Record.*

NEW TREATMENT OF HYDROCELE.—The *Gazette Hebdomadaire* of October 13, contains the report of a discussion which took place in the Chirurgical Society of Paris, on a paper presented by M. Monod, describing his method of treating hydrocele and other serous accumulations, by injecting alcohol, either pure or diluted. He first makes a puncture and draws off a drachm or more of the liquid, and then injects the alcohol. The operation is repeated if necessary. By this method he succeeded in curing three cases of hydrocele and a serous cyst of the neck resembling goitre, the injection of a small quantity of alcohol causing the rapid absorption of the entire fluid, without producing inflammation, and without requiring the patient to remain in bed. He suggest the same method for other serous accumulations. It was objected by M. Guerin and others that the plan of M. Monod was not original—that it was but the revival of an old method. But the present method differs from the other in not drawing off the entire fluid, thus avoiding the active symptoms which followed the injections of iodine and other agents as formerly practiced. The difference is certainly a substantial one. The old method had for its purpose the excitation of inflammatory action and the ultimate adhesion of the surfaces of the sac. That of M. Monod proposes only to cause the absorption of the fluid, and in this respect it is not *radical*, technically speaking, however effectual it may be. It would seem that something more is required than mere absorption; for if no permanent change be effected on the secreting serous membrane, a renewal of the dropsy is to be anticipated.—*Pacific Med. and Surg. Jour.*

CORRESPONDENCE.

Vienna, *Austria*, *Jan.* 15, 1872.

EDITOR CINCINNATI MEDICAL NEWS.

MR EDITOR:—It may not be uninteresting to your readers to learn that a new discovery has been made in the field of medical science, a discovery whose value can scarcely be overestimated, if indeed future researches shall substantiate it as such. But I will give you the facts, as far as known to me, and let your readers judge for themselves.

For some time past there has been talk here about microscopic examinations of syphilitic blood that were being made by some one; but by whom, and with what results, I was not able to learn until last Friday night, when, in attending a meeting of the "K. K. Gesellschaft der Aerzte" of this city, I heard a paper read on this subject by the discoverer, Dr. Losdorfer. Dr. L. commenced his paper by stating that, so far as known to him, no examinations, microscopic or otherwise, of the blood of syphilitic persons, thus far made, with a view to discover some characteristic peculiarity, had lead to the desired result; that some seven months ago, he, as many others had done before him, also commenced a series of microscopic examinations of syphilitic blood, and in the course of his investigaiions arrived at the following facts: In the freshly drawn blood from syphilitic persons, nothing abnormal or peculiar could be seen; but, examining such specimens day after day, as he did, he found, in some of them on the second, in others not until the third or fourth day after its abstraction from the body, minute shining bodies, of irregular shape, some in a state of quietude, others performing a kind of swinging motion; these bodies grew with considerable rapidity for six or eight days; thenceforward no further increase in size could be perceived. At this time, at maturity, they were somewhat larger than red blood-corpuscles, and they now had the appearance of minute cysts, with one or more projections. These arms or projections were developed during the growth of the parent body; usually only one joint was to be seen; occasionally, however, a second one was sent out from the free extremity of the primary one.

For the purpose now of testing this matter, *i. e.* of convincing others that he really was in position to distinguish syphilitic blood from that of nonsyphilitic persons, the following proceedings were had: Professor Stricker, in conjunction with Prof. Hebra, prepared specimens of syphilitic and nonsyphilitic blood on glass slides; the one who prepared them kept an accurate record of the numbers, noting of course those which contained the spurious blood; the specimens were then sent to Dr. L. for examination, who within the week made report of the results of his investigation. In this manner six different lots of such specimens were sent to Dr. L. for examination, each containing from six to twelve specimens, in all not less than fifty of them. Of this number six or eight specimens were reported as spoiled, on account of having been exposed to a freezing temperature, three of which were syphilitic blood. *In every other instance* Dr. L.'s report tallied with the record kept by either the one or the other of the gentlemen above named, as was well understood. No one, aside from the gentlemen who prepared the specimens, knew which numbers contained the syphilitic blood.

During last summer and fall Dr. L. had examined the blood of syphilitic patients in every stage of the disease; before secondary symptoms appeared, while such were present, and during the so-called tertiary period; invariably he had found the same peculiar body, no difference in shape or development being noticeable in either of the three stages.

Dr. L. will not pretend to say that these bodies are the carriers of the syphilitic poison, nor is he able to decide whether or not they circulate already formed in the blood of syphilitic persons, but are so minute as to be invisible to the powers he employed, or are altogether absent—the blood being simply in condition to admit of their development after abstraction from the body.

The temperature of the room in which all these experiments were made ranged between 10 and 18 degrees of R.'s thermometer. Below 10 degrees R. no development occurred.

The highest magnifying powers employed in making these examinations were Hartnack immersion objective, No. 10; eye-piece, No. 3. Very respectfully, yours, J. Trush.

Book Notices.

A Treatise on Human Physiology; Designed for the use of Students and Practitioners of Medicine. By John C. Dalton, M. D., Prof. of Physiology and Hygiene in the College of Physicians and Surgeons, New York, etc. Fifth edition, revised and enlarged, with 281 illustrations. Philadelphia: H. C. Lea. Cincinnati: R. Clarke & Co. 8vo., pp. 728, 1871.

The work of Dr. Dalton is so well known as a standard one that little need be said in praise of it. In all of our Colleges it is employed to a greater or less extent as a text book, and on the shelves of the libraries of physicians all over the land it is to be found. While not prolix, the subjects are treated of sufficiently at length for a thorough understanding of them; and at the same time its conciseness relieves it of tediousness, and makes of the book a convenient volume.

The present edition has undergone a careful revision; and a modification or re-arrangement of many of the parts of the work has been made. The book has been kept up to the present advanced state of physiology in all respects, and will not be found behind any of the most recent works in that respect. We have no doubt it will continue to retain the very high position it has heretofore held.

CONSUMPTION: Its Pathology and Treatment. To which is appended an Essay on the Use of Alcohol in the treatment of Consumption. BY WADE MINOR LOGAN, M. D., Philadelphia: S. W. Butler, M. D., 1871. 8vo., pp. 90.

In our last issue we announced the speedy publication of this work, which is now on our table.

The author in the preface states that his "object in offering this little work to the profession, is simply to afford them the results of some observations made, and conclusions arrived at, in regard to the Pathology and Treatment of Tubercular Consumption, especially touching Nitric Acid as a remedial agent in combatting 'that fell disease.' I hope, however, not to be understood as claiming to have found a specific. I am, nevertheless, confident that in nitric acid we have an invaluable remedy. If this monograph shall inspire sufficient confidence in the views expressed to induce a full and fair trial of the plan of treatment here recommended, I am perfectly willing to abide the verdict of experience as to its virtue."

In the first chapter the author considers the pathology of tubercular consumption, giving the results of his own investigations. He shows that the phosphates are the inorganic elements of tubercle, as iron is the inorganic element of hæmatin, and reasons, therefore, that the introduction of such chemicals into the system of a tuberculous subject will give rise to a corresponding increase of the tubercular deposit. As evidence of the correctness of his conclusion, he quotes Drs. L. M. Lawson, Wood, Cotton, Bennett, etc. But if tubercles are the result of an exudation of the white corpuscles of the blood, as argued by Dr. C. F. Rodenstein, much of whose paper on the subject appears in this number of the NEWS, and not a formation *de novo* out of certain morbid materials of the blood from some mal-nutrition, are we to infer that the phosphates, especially of lime, tend to produce such an extravasation of white corpuscles? And if so, how? Do the phosphates increase the white corpuscles, like iron does the red? Our knowledge of the nature of tubercles is still very limited, but as it becomes more extended and definite, many of our theories will no doubt be dissipated.

The second chapter is devoted to the consideration of the etiology of consumption, in which, the author recites, as predisposing causes, sedentary habits, excessive and protracted exertion of either mind or body, with a consequent deficiency of repose, intemperance, sexual excesses, syphilitic disease, external influences such as climate with its peculiarities of soil, water, improper quality or inadequate quantity of food, etc. As a general principle, he regards, that all influences which "retard or disturb the normal development and conservation of the organism" tend to superinduce a predisposition to consumption.

Chapter third is on the treatment of consumption, which is simple enough--consisting in the administering of nitric and muriatic acids. Nitric acid he employs in doses of thirty to forty drops (beginning with less if the stomach is much enfeebled, or very irritable) of the officinal dilute, in a small glass of water, immediately after each meal. The quantity of muriatic acid is contained in twenty-five to thirty drops of tincture of chloride of iron, giving this agent for the two-fold purpose of both the acid and iron. The *modus operandi* of the acids, is, that they dissolve the phosphates, and their introduction into the stomach during primary digestion will render the food more highly nitrogenous by reacting upon the contents of the stomach, forming nitrates.

The work contains a large amount of information in regard to Phthisis Pulmonalis, independent of the author's peculiar theories of the disease, and is worthy of attentive study. Of course his views require further confirmation before they can be accepted as correct; but they are set forth with great plausibility and are deserving respectful attention. Much credit is due him for his extended investigations, and thorough digest of the results of his own observations, and those of others.

MODERN MEDICAL THERAPEUTICS.—A Compendium of Recent Formulæ, and Specific Therapeutical Directions. By GEO. H. NAPHEYS, A. M., M. D. Third Edition, revised and improved.

The fact that this work has reached a third edition in a little over a year is the greatest evidence of its popularity in the profession. In the present edition over seventy pages of additional matter have been added.

It contains not merely "recent formulæ," but specific "therapeutical directions," and, to some extent, the philosophy thereof, in the management of disease. Collections of therapeutical facts in other works are arranged with reference to the articles of the Materia-Medica. The nosological plan here adopted is the most convenient for the busy practitioner. It enables him to turn at once to the therapeusis of a disease.

EMERGENCIES, AND HOW TO TREAT THEM. The etiology, pathology and treatment of the accidents, diseases and cases of poisoning, which demand prompt action. Designed for Students and Practitioners of Medicine. By JOSEPH W. HOWE, M. D, Visiting Physician to Charity Hospital, etc. New York: D. Appleton & Co. Cincinnati: R. Clarke & Co. 8vo., 261.

This volume, as its title indicates, is designed as a guide in the treatment of cases of emergency occurring in medical, surgical, or obstetrical practice. Among the emergencies treated of are hemorrhage, special hemorrhages, wounds of important organs, of arteries and veins, extraction of foreign bodies, burns and scalds, strangulated hernia, asphyxia, sunstroke, dyspnœa, œdema glottidis, convulsions, complications of labor, etc., etc., etc.

Although the treatment of all of these accidents may be found distributed throughout the various text-books, yet the student and practitioner will find it convenient to have them all considered in a single volume, as it will save much time in hunting through numerous works. Besides, the author's own experience will be found of great value. We can very cordially recommend the work.

REPORT TO THE SURGEON GENERAL OF THE U. S. ARMY on an improved method of Photographing Histological Preparations by Sunlight. By Assistant Surgeon, J. J. WOODWARD, U. S. Army.

Heretofore it has been regarded that the electric and magnesium lights and the oxy-calcium light were superior to sun-light for the production of photo-micrographs of the soft tissues. During the last few months, however, Dr. J. J. Woodward, of the U. S. Army, so eminent as a microscopist, has found improved methods of using the light of the sun for photographing the soft tissues, and has arrived at results which must materially modify former conclusions. He has discovered that the diffraction and interference phenomena in the use of sun-light may be gotten rid of by the use of a suitable condensing lens, even better than by the ground glass heretofore always employed; that by this plan the exposure may be greatly diminished—say from three minutes for five hundred diameters, to a fraction of a second, and that the resulting pictures are not merely quite as free from diffraction and interference phenomena as the best that can be obtained when the ground glass is used, but are characterized by greater contrast and superior sharpness of definition.

A number of the photo-micrographs have been sent us. In distinctness and sharpness of definition, it seems to us they cannot be surpassed.

CIRCULAR NO. 3. WAR DEPARTMENT. A Report of Surgical Cases Treated in the Army of the United States. from 1865 to 1871. Quarto, pp. 286.

We have in this volume 1037 cases recorded, with more or less detail. These will be found of very great interest to every Surgeon. Surgeon General Barnes seems to be untiring in his efforts to make his office subserve the advancement of medical science. Surely the profession owe him a great debt of gratitude.

The cases reported consist of gun-shot wounds of the chest. head. neck. abdomen, upper and lower extremities; incised and punctured wounds; lacerated and contused wounds; simple and compound fractures; dislocations; arrow wounds; poisoned wounds; amputations of the fore-arm, arm, leg. thigh. at the hip-joint; of all four limbs; excisions at the hip-joint, etc., etc.

The compilation of these highly interesting and instructive reports has been made by GEORGE A. OTIS, Assistant Surgeon, U. S. A.

ANÆSTHESIA, HOSPITALISM, HERMAPHRODITISM. and a Proposal to stamp out small-Pox and other Contagious Diseases. By SIR JAMES Y. SIMPSON. M. D., D. C. L. 8vo., pp. 560. New York: D. Appleton & Co. Cincinnati: R. Clarke & Co.

Since the decease of the distinguished Sir Jas. Y. Simpson, his son. Sir W. G. Simpson, has collected together the papers making up this volume and published them. The papers on Anæsthesia contain most of his writings on the subject—those papers and parts of papers, only being omitted which would have been repetitions of others which appear in the volume. Many of the articles were published in his *Obsetric Memoirs and Contributions*, edited in 1855-56, by Drs. Priestly and Storer. Others have been written since.

The subject of Anæsthesia is divided into six parts. Part I gives the ancient and modern history of Anæsthia, treating of, in the third chapter, the tendency to confusion from the discovery of chloroform rapidly following that of sulphuric ether; etherisation or anæsthesia in midwifery, etc. Part II is devoted to the defence of anæsthesia and considers whether anæsthesia increases or decreases the mortality attendant upon surgical operations. In brief, in the six parts of the paper the whole subject of anaesthesia is fully and minutely discussed, taking up about a half of the book.

The remaining papers are valuable contributions to the subjects of which they treat.

In the paper on Hospitalism we quote the following: "I have often stated and taught, that if our present medical, surgical and obstetrical hospitals were changed from being crowded palaces,—with a layer of sick in each flat,—into villages or cottages, with one, or at most, two patients in each room, a great saving of human life would be effected." * * * * * "The man laid on an operating-table in one of our surgical hospitals is exposed to more chances of death than the English soldiers on the field of Waterloo." * * * * "Injuries, indeed, so serious as to require such a grave operation as amputation of the thigh or leg, ought, perhaps, as a general rule, not to be forwarded from the country into a city infirmary. Patients so damaged and shattered would have a far better chance of life if they were operated upon and kept in a railway shed, or in a country hovel, than by being carried to a distance into the richest and best conducted hospital."

The writings of a gentleman who held so high a position as did Sir J. Y. Simpson need no comendation from us. His expressions are authority on what he treats.

THE TRANSACTIONS OF THE AMERICAN MEDICAL ASSOCIATION. Vol. XXII. 8vo., pp. 389.

This volume contains the proceedings of the Association at its meeting, held last May, at San Francisco. It also contains the reports and papers read by the members. It is not so large as previous volumes, and does not make near so good a showing in valuable papers, although it has a number of interesting and important ones.

Dr. William B. Atkinson of Philadelphia, the permanent Secretary, has issued the work in the usual excellent style, which has characterized the previous volumes by him.

Editorial.

CINCINNATI COLLEGE OF MEDICINE AND SURGERY.—The Spring and Summer Course of Lectures will commence in this institution March 5, and continue until the latter part of the following June. At the end of the term the degree of M. D. will be conferred on such candidates for graduation as will have fulfilled the requirement and passed a satisfactory examination.

The course of Lectures will be as complete as the Winter Terms. Students will receive clinical instructions at the Cincinnati Hospital—which is the finest institution of the kind in the United States, and has a good corps of clinicions.

For terms see advertisement.

AMERICAN MEDICAL ASSOCIATION.—Office of Permanent Secretary, WM. B. ATKINSON, M. D., 1400 Pine Street, S. W. Cor. Broad, Philadelphia.

The Twenty-third Annual Session will be held in Philadelphia, Pa. May 7. 1872. at 11 A. M.

The following Committees are expected to report:—

On Cultivation of the Cinchona Tree. Dr. LEMUEL J. DEAL, Pennsylvania, Chairman.

On the Anatomy and Disease of the Retina. Dr. R. F. MICHEL, Alabama, Chairman.

On the Comparative Pathology and the Effects which Diseases of Inferior Animals have upon the Human System. Dr. GEO. SUTTON, Indiana, Chairman.

On the Structure of the White Blood Corpuscles. Dr. J. G. RICHARDSON, Pennsylvania, Chairman.

On Vaccination. Dr. T. N. WISE, Kentucky, Chairman.

On Skin Transplantation. Dr. J. FORD THOMPSON, D. C., Chairman.

On the Nature and Process of the Restoration of Bone. Dr. A. L. MCARTHUR, Illinois, Chairman.

On some Diseases peculiar to Colorado. Dr. JOHN ELSNER, Colorado, Chairman.

On Correspondence with State Medical Societies. Dr. N. S. DAVIS, Illinois, Chairman.

On National Health Council. Dr. **Thomas M. Logan**, California, Chairman.

On Nomenclature of Diseases. Dr. **Francis Gurney Smith**, Pennsylvania, Chairman.

On What, if any, Legislative means are expedient and advisable to prevent the spread of Contagious Diseases. Dr. **M. H. Henry**, New York, Chairman.

On American Medical Necrology. Dr. **J. D. Jackson**, Kentucky, Chairman.

On Medical Education. Dr. **J. S. Weatherly**, Alabama, Chairman.

On Medical Literature. Dr. **Theop. Parvin**, Indiana, Chairman.

On Prize Essays. Dr. **Alfred Stille**, Pennsylvania, Chairman.

On the Climatology and Epidemics of—

New Hampshire. Dr. **G. R. Crosby**,
Vermont. Dr. **G. B. Bullard**,
Massachusetts, Dr. **E. Cutter**.
Rhode Island. Dr. **E. T. Caswell**,
Connecticut Dr. **J. C. Jackson**,
New York. Dr. **W. F. Thoms**,
New Jersey, Dr. **E. M. Hunt**,
Pennsylvania, Dr. **W. L. Wells**,
Maryland. Dr. **C. H. Ohr**.
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Missouri. Dr. **W. S. Edgar**.
Alabama. Dr. **R. F. Michel**,
Texas. Dr. **S. M. Welsh**.
Illinois, Dr. **David Prince**.
Indiana. Dr. **Dugan Clark**.
Dist. of Col. Dr **J. W. H. Lovejoy**.
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Michigan. Dr **S. H. Douglas**.
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Mississippi, Dr. **J. P. Moore**.
Louisiana. Dr. **S. M. Bemiss**.
Wisconson. D. **J. K. Bartlett**.
Kentucky. Dr. **L. P. Yandell**, Sr.
Colorado. Dr. **R. G. Buckingham**.
Oregon. Dr. **E. R. Fiske**.
North Carolina. Dr. **J. F. Haywood**.
South Carolina, Dr. **M. Simmons**.

☞ Physicians desiring to present papers before the Association should observe the following rule:—

"Papers appropriate to the several sections, in order secure consideration and action, must be sent to the Secretary of the appropriate section at least one month before the meeting which is to act upon them. It shall be the duty of the Secretary to whom such papers are sent, to examine them with care, and, with the advice of the Chairman of this Section, to determine the time and order of their presentation, and give due notice of the same. . . . "

OFFICERS OF SECTIONS.

Chemistry and Materia Medica.—Drs. **R. E. Rogers**, Philadelphia, Pa. Chairman; **Ephraim Cutter**, Boston, Mass., Sec'y.

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Secretaries of all medical organizations are requested to forward lists of their Delegates, as soon as elected, to the Permanent Secretary.

Microscopic Objects.—We have received from Edmund Wheeler, of London, on sale, a large number of microscopic objects, of the very finest quality. The prices are twenty-five per cent. less than is usually asked in this country. They include anatomical and pathological specimens, diatoms, beautiful micro-photographs, etc. Among them will be found finely injected specimens of the kidney showing the Malpighian bodies, tubuli uriniferi, veins, etc.; arteries, veins, and bile-ducts of liver; sections of spinal cord; sections of skin, exhibiting perspiratory ducts and glands; trichniæ spirales; itch insects, etc. etc.

Any person confidentially known, or giving reference to those who are, if he desires to purchase a reasonable number of objects, can have an assortment sent for examination and approval; the carriage both ways being at his expense. The objects to be returned *within one week*, and the risk of damage or loss in transit home by the purchaser.

CHOLERA CONTAGION.—The question of cholera is at present of so much importance that all documents on the subject coming from recognized authorities, and bearing a practical character must be noted with great care. Prof. Crocq, of Belgium, Vice President of the Brussels Academy of Medicine, has just communicated to the Paris Academy of Medicine the result of a series of the experiments which he has carried on upon animals with the object of testing whether the alvine evacuations constitute the true vehicle of the choleraic virus. In all of the animals he has succeeded in producing most of the symptoms of cholera, and he finds that the alvine evacuations indeed constitute the vehicle of the virus, not, however, as was suggested by Pettenkofer, through a kind of fermentation, but because of the immediate presence of the virus in the evacuations M. Crocq draws the following inferences from the results of his researches:—

1. Cholera is contagious, and is transmitted by a virus, the vehicle of which is the alvine evacuations.

2. The virus may manifest its effects even less than twelve hours before any evacuation of matter.

3. The period of incubation may be only of two hours; and it may continue one or two days, and even more.

4. All the subjects do not show a like predisposition to undergo the effects of choleraic poison, receptivity may even be altogether absent.

SMALL POX IN ENGLAND.—The *Lancet* of January 13, states that in the seventeen chief towns of England, the deaths from small-pox during the year amounted to the frightful number of 13,174. It says that it represents a preventable mortality that is almost entirely the result of over-security. It thinks that Parliament should make better provisions than at present for vaccination and re-vaccination.

THE POCKET RECORD.—We have received from Dr. S. W. Butler, of Philadelphia, a copy of "The Physician's Daily Pocket Record: comprising a Visiting List," etc. It is a most convenient book for the physician, who should always have something of the kind in which to record his professional visits, etc. It has the advantage over others in that its use can commence any time of the year. We feel very sure that every one who uses it will be pleased wit . it.

MESSRS. WARNER & CO.—Our readers should notice the advertisement of this house. Their preparations are what they are described to be—made of the purest articles of the materia medica, and when officinal, strictly according to the U. S. Pharmacopeia. Much of the disgust which patients have for medicines would be overcome by the use of sugar-coated pills and granules when these are available.

This house manufactures compound pills of phosphorus, which, if physicians employed more, we think they would be more successful in the treatment of many nervous disorders.

THE

CINCINNATI MEDICAL NEWS.

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A CLINICAL LECTURE ON THE PATHOLOGY OF AMENORRHEA.

By A. J. Miles, M. D., Prof. in the Cincinnati College of Medicine and Surgery.

Unless the physician is cognizant of all the causes of amenorrhea, he will often, in his attempts to restore the function of menstruation by medication, not only fail in the accomplishment of his object, but will aggravate the sufferings of his patient.

When girls have attained the age of fifteen or sixteen years, and have not menstruated, their mothers become justly alarmed and consult their physician, who may, without sufficient inquiry, prescribe medication to produce this secretion in one not possessed of either a uterus or ovaries.

Dr. Hodge says, "If amenorrhea, the non-appearance and the disappearance of the menses, is, therefore, not a disease, but a symptom or sign of an abnormal or morbid state of the uterus or its appendages, then all attempts to induce the flow of the catamenia, without a careful investigation of the condition of the pelvic viscera, are unscientific. They are but little elevated above the efforts of the empiric, which may or may not be successful, may be useful or injurious, instead of being founded on scientific principles, deduced from the pathological state involved."

Among the many causes of amenorrhea it not unfrequently occurs that there is either absence, rudimentary development, constriction, and obliteration of the uterus, or absence or atrophy of the ovaries, as well as various abnormal conditions of the vagina.

Scanzoni, in his work on Diseases of Females, says: "The absence of the womb scarcely ever exists alone; but is conjoined with malformation of the fallopian tubes, of the uterine ligaments, and of the vagina."

These malformations present great varieties, and are of more or less importance. In some cases these organs are entirely absent. The partial or total absence of the vagina, and the defect of conformation of the external parts, which also have been sometimes observed, are of great importance in regard to diagnosis. The general development of those women in whom complete absence of the womb has been found does not always present very sensible anomalies. With some individuals even the sexual instincts do not seem to have been diminished. Still, in all the cases where defects of conformation have been determined by an autopsy, (at least in all those which have come to our knowledge,) the outward sign of ovulation, the menstrual hemorrhage, has always been absent.

Furthermore it is clear that the gratification of venereal exigencies could not be regular, after what we have said of the anomalies which the conformation of the vagina presents in almost all these cases. If, however, in spite of all these obstacles, coition has been accomplished, there may have been an *error loci.*

Burgraeve reports a case of this kind. A woman, after having several times engaged in the act of copulation, complained of incontinence of urine, an explanation of which was soon discovered by examination of the parts. The urethra, the opening of which was lacerated, presented such a degree of dilatation that the finger could be easily introduced, even into the bladder.

It may also happen, as Kirvisch observed in a single instance, that a vagina originally contracted, may enlarge and lengthen through frequent coitus.

Still, from the absence of the uterus, it does not necessarily follow that the function of ovulation ceases. For in the ovaries, sanguineous effusions and little cysts have sometimes been discovered, the existence of which was probably due to the functions of these organs.

Hence we may have disturbances provoked by sanguineous accumulations, by inflammatory exudations in the pelvis, and by various alterations which the ovaries may undergo.

Rokitansky, in his Pathological Anatomy, says complete absence of the uterus must be considered as extremely rare; in most cases in which the uterus was found deficient, in the dead or living subject, rudiments of a uterine organ of different forms were discovered.

The most common cases of arrest, which is generally considered as absence of the uterus, are those in which the fold of the peritoneum, which is destined for the reception of the internal sexual organs, contains, on one or both sides, posteriorly to the bladder, one or two small, flattened, solid masses, or large hollow bodies, with a cavity the size of a pea or lentil, which is lined with mucous membrane. They are to be viewed as rudiments of the uterine horns, and the fallopian tubes bear an exact relation to their development. These may be either totally deficient, or terminate in the vicinity of the uterus in the peritoneum as blind ducts; or they may communicate with the uterus, with or without an open passage.

This formation of the uterus, especially the existence of two lateral, hollow, elongated and rounded uterine rudiments, each of which is connected with a corresponding fallopian tube and ovary, constitutes what Mayer terms the uterus hiaportus. From each of the uterine rudiments a flattened round cord of uterine tissue ascends within the fold of the peritoneum, and the two from each side coalesce. The place of the uterus is occupied by cellular tissue, in which a few uterine fibres, derived from the just mentioned cord, may be traced. It presents the general outline of a uterus, and, reaching downward, rests upon the arch of a short cul-de-sac. The external sexual organs and the mammary glands, as well as the general sexual character of the individual, attain a normal development,

If we pursue the progress of these uterine rudiments we find a development on one or both sides, representing in the former case a uterine half, or a uterus unicorasis; in the latter a two-horned uterus, or uterus bicornus, varying in degree: this is what is falsely called the double uterus—uterus duplex.

It may be inferred that in these various groups of rudamentary development there are an infinite number of intermediate forms, the double uterus being the lowest degree of these arrests of development. Thus it is easily to conceive that those women in whom the uterus is rudimentary, suffer from an obstinate amenorrhea, against which of course all treatment is powerless.

Incomplete development of the womb may be another cause of amenorrhea.

Scanzoni has two classes of anomalies of incomplete development—either the organ has preserved, until after puberty, the configuration which it presented in the fœtus, or rather in the new-born infant; or, while retaining the form of a well developed uterus, it has not its normal dimensions, but has remained remarkably small.

The fœtal form of the uterus is characterized by an extreme length of the neck relatively to the body. The organ, as a whole, does not assume, as in the adult, the form of a pear, but that of a cylinder. The distance from the internal orifice to the fundus of the organ does not, in certain cases, exceed half the length of the neck.

The second class is that in which the anomaly consists only in a diminution of all the diameters of the organ.

The other parts of the sexual system may be perfectly formed, but a defective development is sometimes found co-existing in the ovaries, the vagina and the breasts. This fault of conformation is most frequently met with in women of a weakly appearance, who have suffered during the period of development from constitutional disease. Still this is not always the case, for it sometimes occurs in subjects of a robust and perfectly organized constitution.

The incomplete development of the woman is of considerable importance to the practitioner, for it is always the cause of certain troubles in the functions of the sexual organs. The inevitable results of this defect of conformation are a complete amenorrhea, or at least a very scanty, insufficient menstruation, and sterility. And these disturbances are the more serious because we possess no certain means of removing the cause of the evil. Some authors have claimed that this anomaly often gives rise to sanguineous congestions in other organs, as, for example, in the brain, the lungs, the liver, the spleen, etc. The vagina is frequently contracted in its length and breadth in connection with this anomaly. The os tincæ is notable for its small size; it sometimes forms a rounded prominence scarcely as big as a pea. Or it is in breadth that it is principally diminished; it then takes the form of a slender, pointed little cone. The external orifice is also remarkably small. The sound will aid very much the diagnosis.

Kirvisch, as well as most other authors, has but little faith in medication unless to strengthen the constitution of the patient. But I am disposed to think internal local stimulants, as well as other means that will determine an afflux of blood to the parts, will be attended with good results, on the principle that cultivation and exercise of a part will increase its development, growth, and powers.

In atrophy of the womb there is generally defective innervation resulting from disturbance of nutrition, accompanied by complete amenorrhea or a very scanty menstruation. There are two varieties of atrophy; the *concentric*, in which the volume of the walls is much diminished with contraction of the cavity, and therefore the organ appears exteriorly very small. In the second variety, or *eccentric*, there is diminution of the walls with dilatation of the cavity. Atrophy may be general, or it may be confined to certain parts of the womb. Where partial atrophy is confined to the neck of the uterus it may result in permanent contraction of the canal. In general atrophy the womb is small and flat; the walls are thin; the cavities are diminished in capacity; and the parenchyma is soft and doughy to the touch.

Atresia of the uterus is not only followed by amenorrhea, but may induce results fatal to the health, and even to the life, of the individual. In most cases such affections are congenital. Generally the obliteration is located at the external orifice; more rarely at a part higher up in the cavity of the neck, or in the neighborhood of the interior orifice. The obliterating material is either cellular tissue, traversed more or less by muscular fibers, or else is formed by the mucous membrane of the vaginal part of the neck, which, being unduly extended, obstructs the uterine orifice.

We have just said that atresia of the internal orifice is seldom congenital, but is generally acquired. The obvious reason is, that at a certain age the upper portion of the cervical canal contracts, and thus the uterine walls surrounding the internal orifice are brought nearer together. Adhesions of these parts are also often favored by the numerous erosions and granulations of the mucous membrane of the neck, which are met with in the course of chronic catarrh, so frequent at this period of life. Such adhesions become still more likely when the abnormally developed folds, which cover the mucous membrane, jut out beyond the level of its surface in such a manner that their tops, always in contact, end in becoming united. Complete atresia of the womb, of whatever variety, always effects in the end some marked modification in the position, form, and texture of the organ.

In the first case the atresia, after puberty, opposes an insurmountable obstacle to the flow of the menstrual blood secreted by the mucous membrane of the womb. Accumulating above the obliterated part, the imprisoned fluid dilates more and more the walls of the organ and forms a tumor which, by slow accretion, may attain the dimensions of an adult human head, or even those of the last stages of pregnancy. This augmentation of volume is always accompanied by an elevation of the entire uterus and an alteration in its form. It gradually loses the oblong form and becomes spherical, and finally resembles a ball. The walls of the uterus, under these circumstances, present a very variable thickness. When, from a very rapid effusion, the uterine walls are stretched mechanically and dilated by force, the blood-vessels and muscular fibers have not time to form, and when the uterus attains a very large size, the walls will be found as thin as a sheet of paper, and are apt to burst, discharge the contents into the abdomen and induce fatal peritonitis. Where the accumulation and distention is slow the walls of the uterus will become thickened. Amenorrhea may also result from flexions of the uterus. Flexions, when protracted, may cause an atresia at the place of the flexion by the intimate contact of the anterior and posterior uterine walls. And as the surface of these parts is almost always the seat of a chronic inflammation which deprives them of their epithelium, adhesion becomes so much the more easy.

We may have amenorrhea from atresia or occlusion of the vagina. Whether this affection be caused by an imperfection of the hymen, or by adhesion of the walls, whether it be congenital or acquired, it manifests all the symptoms of retention of the menstrual fluid. This cause of amenorrhea is of course more easily detected than where the anomaly exists in the uterus; still it is too often that the delay in making the necessary examination, where relief may be afforded, is protracted until the life of the patient is seriously endangered.

[To be continued]

A FEW REMARKS PERTAINING TO THE TREATMENT OF SCABIES.

By J. TRUSH, M. D.

During a long series of years, Sulphur, in the shape of various kinds of ointments and mixtures, was the only reliable remedy known to the profession in the treatment of scabies; but within the last few years a number of other drugs have been brought forward and recommended as especially applicable in the management of this disease. As among the most prominent of such drugs, deserve to be named the Liquid Styrax, the Peruvian Balsam and Carbolic Acid. To present the results of some of the more recent experiments with these three remedies is the purpose of this article. We will notice them seriatim, in the order named above.

The Styrax, Styrax Liquida, Balsamum Storacis, was first recommended as a remedy against itch, by Dr. V. Pastan, in the year 1865, and by him employed with very flattering success. On this gentleman's recommendation, other physicians experimented with it and obtained equally favorable results, and, so rapidly did the drug become popular with German physicians, that, now, it is used almost exclusively in the Prussian army, in the treatment of this affection. A certain Dr. Ulmer, of the Austrian army, has lately reported sixty-five cases of Scabies treated with Styrax; his results were as follows: twenty-two cases were cured after one application; eighteen after two; twenty-four after three; and one after five applications of the remedy. No man was excused from duty on account of treatment, and no artificial eczema sprang up to mar the result. In a recent number of the *Wiener Central Blatt*, a Dr. Rothmund has published the results of his experience with this remedy, and also those obtained from the use of the Peruvian Balsam. He immersed some living acari in Styrax, and others in Peruvian Balsam, and found that those put in the latter invariably died in somewhat less than two hours, while those immersed in the former lived from four to five hours.

The success attending the use of either of these remedies upon his patients, does not seem to have been materially different; nevertheless Dr. R. preferred the Peruvian Balsam, probably because his immersion experiments had taught him that acari, in contact with this substance, died much sooner than they did when placed in Styrax. The Styrax is likewise prescribed a good deal at the clinic of Prof. Hebra for outpatients, but is not employed to any extent in the wards. As the liquid Styrax is too thick to admit of ready application in its pure state, it is usually somewhat diluted with olive oil, or olive oil and alcohol, as; ℞ Styrax liquid ʒii; Ol. Olive ℥i: or ℞ Styrax liq. ʒii; Alcohol ʒss; Ol. Olive ʒii. The special advantages claimed for the Styrax are, that it will surely and speedily cure the disease; that the patient need not lose an hour's time on account of treatment, no matter what may be his business, inasmuch as no disagreeable smell emanates from the drug; that it produces no eczema; and lastly that it is cheap. In the United States this last item may not weigh in its favor, as there it is likely to be considerably dearer than in Europe, unless the balsam of another species of the liquid ambar family, viz. the "Liquid Ambar Storaciflua," which is found in several of the Middle States, could be cheaply and in sufficient quantity obtained.

The Peruvian Balsam was employed in the treatment of scabies as long ago as 1853, but to a very limited extent. In 1863, however, an extended series of experiments were made with it in the Charity Hospital at Berlin, and the results certainly seem to have been very gratifying, even more so, perhaps, than those above detailed as obtained with Styrax; but on account of its much greater cost than its Asiatic opponent, it never found its way into army or hospital practice. In other respects the P. B. possesses all the advantages of the Styrax; it may be employed pure, or diluted with equal quantities of glycerine.

Before applying either of these two remedies, it is well to let the patient take a bath, or good scrubbing with soap and water, though this is not absolutely necessary. In any case must the skin be thoroughly dried before an application is made, as upon a moist skin these balsams adhere poorly, and do not readily penetrate into the canalientae of the acari and their ova. With the majority of patients, one or two thorough applications suffice to effect a cure, nevertheless it is deemed best to extend their number to four or six, rubbing in morning and evening for two or three days in succession.

That Carbolic Acid should have been given a trial in this disease is but natural, since this very property, viz. that of proving destructive to animalculæ and low organisms generally, first attracted the attention of the profession. And there seems to be no doubt that scabies can be readily cured with carbolic acid; neither is its smell very disagreeablee; nor could any one, even the poorest, object to it on the score of cost. There seems to be really but one drawback to its general use; it may, in cases where the eruption extends over the greater portion of the body, occasion poisoning, unless applied with care and judgment.

Dr. Rothmund, already quoted, has, however, seen no evil effects from the embloyment of a solution of the strength of one scruple of the acid to two fluid ounces of glycerine, or olive oil, applied twice daily, and which mixture he has found effective. As still safer and equally reliable, the same gentleman recommends the carbolate of soda, dissolved in distilled water, viz; half an ounce of the salt to six fluid-ounces of water; also to be applied twice daily.

It may be well to mention, in this connection, that according to Dr. Schroff's experiments, on tame rabbits, a much greater quantity of the acid is tolerated, when administered in the form of the carbolate of soda, than when a solution of the acid in glycerine or water is exhibited. Two grammes of the carbolate of soda, containing one and a half grammes of the acid, being borne, while half a gramme of the acid in glycerine proved fatal. Dr. Schroff also made the discovery that in the saccharate of lime we possessed a pretty good antidote in cases of carbolic acid poisoning. One hundred grammes of a concentrated solution of the sacch. of lime should be administered for every two grammes of the carbolic acid taken into the stomach.

Should further trials substantiate, that, in the strengths recommended by Dr. Rothmund, these carbol preparations are effective and likewise entirely within the limits of safety, we might justly place the acid at the head of scabies remedies; the more so, as it is also an excellent agent to allay pruritus generally, and, instead of producing artificial eczema, will contribute much towards curing whatever of this affection may be present in conjunction with scabies. It is this, a point of no little importance in the treatment of itch, for, though many other preparations and methods of cure, as the sulphur and lime solution of Vlemingkx, or the French quick cure, will make short work with the acarus, yet they are liable to produce very extensive eczema, temporarily entirely unfiting such patients for any kind of labor. A similar undesirable result is apt to follow other sulphur preparations, if they are applied for several days in succession. In all such instances patients invariably believe themselves still afflicted with the original disease, although the last acarus and ovum may have been destroyed, simply because the sensation of itching has not disappeared; they cannot understand that now it is due to another disease which they partly produced with the very ointment that was to cure them. Generally, the rubbing is then continued and the application made with increased vigor, only to bring the disease from bad to worse. Finally some physician is consulted, who, appreciating the true state of the case, treats the eczema with its own proper remedies, and the patient recovers at once.

In regard to disinfection of clothing, Drs. Rothmund and Ulmer found that simply placing the same in some unoccupied apartment for ten days, sufficed for this purpose, inasmuch as any of the parasites that may be in the clothing, die of starvation within this space of time. Where clothing must be worn again in two or three days, or to make assurance doubly sure, we shall of course subject the infected garments to the action of boiling water, or expose them to a heated atmosphere in a suitable oven or chamber.

Vienna, Austria, January 12, 1872.

ON APHASIA.

By J. A. Thacker, M. D., Prof. of Psychology and Diseases of the Nervous System in the Cin. College of Med. and Surg.

From the Lancet of London, Sept. 1870.

Definition.—" Inability to communicate thoughts, ideas, or names of things, either by words or writing, the intellect being more or less perfect otherwise, and the organs of phonation free of paralysis. The affection may be associated with unilateral paralysis or spasms, and be subsequent to apoplexy. There may be disease of the third left frontal convolution, or in the left anterior lobe of the brain near to this convolution, and various other lesions of no constant kind."

It will be perceived from this definition of aphasia, taken from Aitken's Practice of Medicine, that the term is intended to express the loss of the power of articulate language proceeding from other causes than paralysis of the vocal cords or other disorder of the organs of speech. It is distinguished from aphonia in that that disease is brought about usually by some affection of the muscles of the larnyx from overstraining of the voice in singing or speaking, cold or sudden changes of weather, rheumatism of the parts, tumors, warty-like growths, thickening of the chordæ vocales, paralysis, etc. In aphasia no abnormal condition whatever of the vocal cords can be found—they are intact in all their parts; and, in what we may term *pure* cases, there is no want of innervation.

M. Trousseau regards the disease as a loss of memory of words. Ideation proceeds, but words, by which external manifestation of ideas is made, by which they are communicated to others, cannot be employed. The patient thinks—may be thinks as correctly as ever he did,—but is unable to make his thoughts known by articulate sound to those about him.

Language consists of sounds, which are the signs of our ideas, and it is always supposed to keep pace with them. With barbarous tribes of people, possessing but few ideas, and those of the simplest character, we find but few words constituting their vocabulary; but as they become surrounded by new circumstances, as their experiences increase and become less simple—more complex—there results a wider range of thought, and need of a larger compass of words to give them utterance; and not only so, but there is required the ability to connect words into sentences, in order to express successive ideas associated together, and also compounds and modifications of different kinds, to set forth the different shades of meaning.

In his article on the Law of Evolution in his work on "The First Principles of Philosophy," Mr. Herbert Spencer speaks as follows with regard to language:—"The lowest form of language is the exclamation, by which an entire idea is vaguely conveyed through a single sound, as among the lower animals. That human language ever consisted solely of exclamations, and so was strictly homogeneous in respect of its parts of speech, we have no evidence. But that language can be traced down to a form in which nouns and verbs are its only elements, is an established fact. In the gradual multiplication of parts of speech out of those primary ones, in the differentiation of verbs into active and passive, of nouns into abstract and concrete,—in the rise of distinctions of mood, tense, person, of number and case, —in the formation of auxiliary verbs, of adjectives, adverbs, pronouns, prepositions, articles,—in the divergence of those orders, genera, species, and varieties of parts of speech by which civilized races express minute modifications of meaning,—we see a change from the homogeneous to the heterogeneous."

In other words, we have an evolution of language following and the result of an evolution of ideas. As one proceeds from the simple to the complex, and the still more complex, so does also the other. When the former has attained to a wide compass, and contains words expressive of the nicest shades of meaning; when the most complex relations of thought can be expressed by it; when it has become competent to set forth the most intricate processes of reasoning—the latter first have been developed into a wide range—the individual has acquired a nicety of discrimination and ability to note difference, when previously they were not perceived, and first has discovered the relation, as the result of experiences, which phenomena present, and the deductions which must follow. Thought, therefore, it will be seen, must precede language, and in no case can there be language without thought. The former is but a manifestation and measure of the latter. They are intricately interwoven; but while ideas are necessary for words, words are not necessary for ideas. The case of Laura Bridgman, which has been quoted by writers in evidence, who was deaf, dumb, and blind, proves that it is possible to think without words, as well as to express thoughts without words, and it seems to me that every case of congenital deafness, with its consequent dumbness, illustrates the same fact.

In reply to the objection that we do think of a word before or without uttering it in speech, Dr. Maudsley, in an article in the London Lancet, of last year, says, "We ought to be careful not to mistake the conventional sign for the thing signified. What we really have, as the essential factor, in the mind is, not the word, but the motor intuition denoted by the word, just as we have in the mind the conception of any other voluntary movement before making it. There is, in fact, a modified activity of the motor centre in relation to the thought sufficient to suggest the word, but not sufficient to issue in outward expression. It is well known that some persons of a dull and feeble understanding are obliged sometimes to call the actual movements of speech to their aid, in order to get a distinct conception; it does not suffice them to rehearse mentally the words, but they must repeat them aloud;—that subdued activity of the motor centres, that internal representation of the words, which is sufficient for persons of ordinary understanding, not being sufficient for their sluggish minds. . . . It is plain, then, that the motor intuitions, not of speech only, but of other movements, constantly and essentially intervene, more or less consciously, in our mental processes—that there is a constant interaction between the motor and the ideational centres in cerebration. In the case of speech we mark each movement by a conventional sign or word, so that the sign comes to stand in our minds for the thing denoted by it." When we think, then, and do not give utterance to our thoughts, it is the motor intuition we have in mind, and not the word; and in the case of mutes, the motor intuition of the movements of another set of muscles besides those of the tongue, larynx, etc., is substituted. An individual instinctively associates his ideas with certain muscular contractions; and when the association has become of the strongest kind, every thought brings up its associated movement, as when an idea is associated with another idea, it cannot be excited without the other also appearing in the mind. It is stated that Laura Bridgman's fingers worked, making the initial movements for letters of the finger alphabet, not only during her waking thoughts, but in her dreams. I disagree, however, with Dr. Maudsley that a motor intuition of some kind is an essential factor of thinking, for I do not consider that it is supported by sufficient evidence, and also because, if such was the fact, there could be no increase of ideas among a people beyond what their vocabulary afforded. It is not until *after* an idea has been formed that a word or sign of any kind is constructed to represent it, so that for a time, longer or shorter, it is unassociated with any muscular movement, and only becomes so because there is a potentiality for it, and no positive proof has been adduced that this potentiality necessarily exists.

Says Claude Bernard, in his address at his reception into the Academy of France: "We designate by the term 'centres' the nervous masses which act as the medium of the points of arrival of the nerves of sensation and of the points of departure of the nerves of motion. It is in this soldering substance, which is the latest organized, that the exercise of the function opens and hollows, as it were, the channels of communication of the nerves which are to correspond physiologically. The nervous centre of speech is the first we see traced in the child. The sense of hearing is its necessary point of departure. If the organ of hearing be wanting, the centre of language will not be formed: the child born deaf will remain dumb. In the education of the organs of speech there is consequently established between the auditive sensation and the vocal motion a veritable nervous circuit which connects the two phenomena in a common functional object. At first the tongue prattles; it is only by habit, and aided by frequent repetition, that the motions become sure, and that this central communication of the nerves grows easy and complete. Nevertheless, it is only with age the function is printed definitely in the organization. A young child who ceases to hear gradually loses the faculty of speech which it had acquired, and again becomes dumb; while the adult man, placed in the same conditions, never loses speech, because in him the centre of language is fixed, and the development of the brain complete. At this period of life the functions of the acquired centre have become really involuntary, as if they were innate. . . Speech in the accomplished orator is, as it were, instinctive; and all of us have seen the practised musician's fingers execute of themselves the most difficult pieces without the assistance of the mind, which is often occupied by other thoughts." And it may be added that speech may continue on and on for a long time without the individual being at all conscious of it. There are very few persons who have not read aloud for an hour or more for the entertainment of others, while their thoughts were engaged in the contemplation of subjects entirely foreign to what they were doing, and unable at the close to bring to mind a single fact of the many they had just repeated with their lips. In such instances the vocal act is simply sensori motor, the visual impression of the printed letters upon the sensorium commune being sufficient to keep up the movements of the muscles of the organs of speech.

Two essential factors, then, as Dr. Maudsley states, enter into intelligent speech—the idea, and the motor act; "the former having its seat in the grey matter of the convolutions; the latter proceeding from the nerve-centres of the motor nerves which go to the tongue and other muscles concerned in speech. The subordination of motor to ideational nerve-centre here is in conformity with the subordination of all other motor centres to the supreme ideational centres; and the muscular acts of speech proceed from their appropriate motor centres, just as the muscular acts of a limb which is accomplishing some intelligent purpose proceed from its appropriate motor centres." An idea formed in the cortical substance of the cerebrum effects an impression upon the sensorium commune—the seat of consciousness, according to Dr. Carpenter, not only of external but of internal impressions—through the convergent fibers of the medullary substance of the brain; and then, if attended by a desire or feeling, giving it a direction outwards; or, if not checked by a volition, it finds expression in language; or if hindered, or if sufficient force has not been set at liberty in the sensory centre, it only excites consciousness, without resulting in any external manifestation.

[To be continued.]

VACCINIA.

By A. E. DUNCAN, M. D., of West Milton, O.

There is no one boon offered to the world by the medical profession, of so much value as that of vaccination;—producing the vaccine disease. The person thoroughly thus diseased is protected against that most loathsome disease, *variola.*

The protection may be regarded as perfect for a number of years; and then *decreasing* after that time as the length of time *increases* since vaccination.

Dentition, puberty, "change of life," and the "decline in life," may be regarded as systemic changes that have an important bearing as to *when* a certain party would likely re-take the vaccine disease, or *varioloid*, if exposed to it (small pox). But how sad is the fact, both for the people as well as the profession, that this disease, *Vaccinia*, is not better understood; especially by those who practice vaccination.

Not long since I heard a Doctor of Medicine say that he kept a sore on his arm *constantly* while small-pox is in the country. Well, he might keep a *sore* on the arm, but to keep a *vaccine* sore, and be under the influence of the vaccine disease, is a very different thing.

Another Dr. says, " vaccination never runs out," and " if you have been vaccinated you are protected as long as you live." Such unguarded expressions are a great cause of the lack of confidence in the minds of so many honest people in regard to vaccinia.

Another cause is the want of confidence which physicians sometimes exhibit themselves; for example, the honest man calls on his family physician, and has his family vaccinated, and inquires, " Dr., do you really think if this takes that my family will be protected?" Which is answered with an air of confidence, " I most *certainly* do." Then, on the morrow, the Dr. is sent for to see the next door neighbor, who has small pox in his family. He can't go. " I am too old and fleshy to go into small pox." And another says, " it would interfere with my other business." So he can't go. And so it goes,—the father feels determined to have some one, and goes to another town, and meets with the same disappointment; returns home late in the night disappointed and sad, and says to his family, " the Dr's. won't come. I expect we shall have to die of the small pox." Such conduct on the part of medical men proves that they have not confidence in the art they practice—vaccination.

A third cause of the want of confidence in vaccination results from " false " vaccination.

There is a false vaccine scar, or there are parties taking variola maligna, who have recently been vaccinated. The latter I do not believe.

Dec. 4, 1871, I was called to see Miss E—, aged 14, who was naturally a healthy girl. I saw this patient on the third day of the eruption. Judging of the severity of the attack from the amount of fever and delirium that had *preceded*, and the number of the eruption, or papules, and the confluency of the same, I would say that I have never seen a more severe attack of small pox.

This patient had a scar on the left arm near the insertion of the deltoid muscle; and spoke with confidence concerning the " very sore arm " she had after vaccination. This scar was of that character denominated *false*, soon to be described. And I so expressed myself as soon as a careful examination was made. This patient died on the eleventh day of the disease—the eighth day of the eruption.

A *true* vaccine scar is a pit well set down into the derma, having small indentations about the size of a pin's head. The sebaceous glands and follicles are intact and have their proper function.

In a *false* vaccine scar there are no small indentations; the sebaceous follicles are wanting, as proven by the sleek appearance and want of perspiration over the entire scar. This scar is the same in all particulars as that produced by a malignant ulcer. And I am firmly of the opinion that the vaccination that produced the scar just described, produced an ulcer with its concomitant symptoms instead of the desired disease, vaccinia.

During the late U. S. war I vaccinated a few thousand of the troops, when I first observed the difference in the vaccine scar as above described. Among the Ohio soldiers, I found about five per cent of the vaccinated who had the *false* scar. And of the soldiers from East Tenn. about *twenty* per cent. Those having the false scar would generally take the vaccine disease from vaccination. I did not take notes so as to speak positively as to the number that would take the vaccine disease, as compared with those vaccinated for the first time; but from memory, I believe it to be about the same.

A "sore arm" following vaccination does not of itself prove that the party has the vaccine disease. It is not the design of this article to describe the vaccine disease (which is well described in our text-books), but to excite a more careful *study* of the disease; a better, and more uniform understanding of the same, by those who practice vaccination.

Vaccinia is a disease as certainly as *variola*, *rubeola*, or *roseola*. It has its period of incubation, its febrile symptoms, which last a given time, as uniform as in measels; does not abate in a day or two, nor last six or eight weeks, as is sometimes met with in ulceration from vaccination.

In order that the greatest benefit be derived from vaccination, and a just appreciation and a due confidence in the same, I should regard it as a safe rule to *re*-vaccinate all having a "false scar" as persistently as if they had not been vaccinated, if the disease and its characteristic sore were not produced at the first attempt.

2nd. Re-vaccinate as soon as the child has all its milk teeth.

3rd. Re-vaccinate at puberty.

4th. Re-vaccinate females at the "change of life."

5th. Re-vaccinate at the time of an epidemic.

All children should be vaccinated before they have attained the age of six months.

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ANEMIA OF THE BRAIN—SOFTENING.

Compiled for the MEDICAL NEWS.

[Concluded from page 65 of the Feb. No.]

In embolism there are no prodromata. There is sudden loss of consciousness, with paralysis of several parts of the body. Generally the facial, the hypoglossal, and the nerves of the extremities, are more or less affected, but not always. Sensibility is abolished in the conjunctiva, but is retained in the cornea. The pupils remain sensitive, and are neither contracted nor dilated; neither are there symptoms of compression nor concussion. There are no vomitings and no contractions. The pulse is weak and small, and the temperature rather below the normal standard. Occasionally there are epileptiform convulsions. Psychical troubles do not ordinarily appear till the collateral circulation becomes active, and local hyperemia is thus induced. Dr. Hammond relates an interesting instance occurring in a lady who had had repeated attacks of acute rheumatism, and who had at the time marked aortic insufficiency; headache and vertigo suddenly occurred while she was conversing with a friend, and her speech was cut short with as much suddenness as though she had been shot. There was no paralysis of the tongue, but all idea of language was abolished. Within forty-eight hours she recovered entirely the faculty of speech. In another, that of a gentleman with a similar clinical history, headache, vertigo, confusion of ideas, and amnesic aphasia suddenly supervened. That both these were cases of embolism can scarcely be doubted.

In examining a case of recent embolism, the ophthalmoscope should always be used to view the fundus of the eye, and even in old cases valuable signs will often be obtained. The middle cerebral artery, the ordinary seat of embolus, arises from the internal carotid after the anterior cerebral and ophthalmic have been given off. Occlusion of its channel must, of course, throw an increased amount of blood into these last-named arteries, and, as the arteria centralis retinæ is derived from the ophthalmic, it and its branches become enlarged. The ophthalmoscope will enable us to discover the congestion thus produced, and will often be the means of helping us to determine, in the absence of paralysis, which side of the brain is the seat of the lesion. In older cases we will frequently find retinal congestion.—*Hammond.*

The most common first step in the causation of cerebral embolism is acute articular rheumatism, which, by inducing acute endocarditis, leads to the formation of emboli on the valves of the heart and other parts of the endagium. Aneurisms of the aorta, or other large artery, resulting in the coagulation of the blood in aneurismal sacs, may likewise induce it by a portion of the clot being washed off by the current. Esmarch details a case in which, while an examination was being made of an aneurism of the carotid, the patient suddenly fell back in an apoplectic stupor. The whole right side was at once paralyzed, the facial muscles on the left were convulsed, and four days afterward death ensued. Post-mortem examination showed that the left internal carotid, the middle cerebral, and the ophthalmic artery, were completely closed by coagula, which were identical in structure and appearance with the clot in the aneurismal sac. —*Hammond.*

Emboli may also originate in the lungs, and, entering the left auricle through the pulmonary veins, finally lodge in a cerebral artery.

Dr. Clymer, in Aitkin's Practice, says that thrombosis and embolism are destined to take a prominent place in cerebral pathology; and particularly in softening of the brain, which, it is believed, will be found to be much less frequently a primary affection, depending upon an inflammatory process, than has generally been supposed. "That both autocthonous and migratory clots are capable of producing apoplectic symptoms, by the occlusion of one of the cerebral arteries, or the capillaries, and that, too, when the brain substance is apparently sound, there is no doubt. There is always, as a consequence, paralysis of motion in the side oppcsite to the obstructed vessel; in many cases the general sensibility is unimpared, sometimes lessened, but rarely, if ever, completely absent, and never perverted. The loss of consciousness is slighter, and is sooner gotten over than after cerebral hemorrhage; and the mind is less affected, sometimes not at all. Sight and hearing may be disordered, and aphasia sometimes happens. Death may follow closely upon the apopletic attack, or the serious symptoms may amend, to reappear at the end of a few days, or even weeks, when they are fatal: or the cerebral symptoms may remain for awhile stationary, and death be caused by the concurrent disorder,—cardiac disease, gangrene of the extremeties, Bright's disease, etc. The middle artery of the brain would seem to be the most common seat of emboli, but they have been found in the anterior, basilar, and vertebral, and serious apopletic phenomena have followed carotidean emboli. Haase gives two cases where the clot extended into the common carotid; and Dr. Markham records a case, (*On Diseases of the Heart*,) in a woman of fifty, of plugging up the innominata, right common carotid, left internal carotid, and middle cerebral arteries, with apopletic symptoms, hemiplegia and death. Dr. Abercrombie mentions an instance of obstruction of the basilar artery."

Cerebral Softening.—Cerebral softening is a consequence of several conditions, but especially results from thrombosis and embolism. Most authors treat of it in direct connection with obliteration of the cerebral arteries, but, although frequently due to this cause, it may be produced by others, and occlusion is not always followed by softening.

In the softening of the brain which results from thrombosis or embolism, the first stage after that of congestion from the excessive action of the collateral circulation is what is called *yellow softening.* This is not, as some authors have supposed, produced by the infiltration of pus into the cerebral substance, but is caused by regressive metamorphosis of the brain-cells into fat, the granules of which are mixed with the coloring matter of the blood, which gives rise to the peculiar yellow color. The white corpuscles of the blood also undergo degeneration into fat.

These altered white corpuscles were described by Gluge as inflammation corpuscles, under the idea that softening was always the result of inflammation. Laborde, who has studied this subject with great success, shows, however, very conclusively that the transformation is a true degeneration, a part of the fat-corpuscles being derived from the nervous fibres, the cylinders of which disappear, the contents being extravasated, and, with the myeline, being converted into fat; and another part consisting of altered white blood corpuscles. At this time the cerebral tissue is pulpy, constituting a centre of softening or a *foyer*, the consistence of which is greater at the circumference than at the centre. The bloodvessels passing through the disorganized portion are easily separated from the peri-vascular tissue, and are covered with oil-globules.

The second stage is designated *white softening*, and in it the brain substance loses altogether its morphological characteristics, and appears as a white, cream-like matter, so soft that a weak stream of water, allowed to impinge upon it, washes it away. In this semi-liquid matter whitish flakes of denser tissue are suspended. Microscopical examination shows that all traces of nervous structure have disappeared, and that no anatomical elements remain except oil-globules and organic corpuscles, somewhat resembling leucocytes.—*Hammond.*

The pathogeny of the partial necrosis, which results in many cases of thrombosis and embolism of the cerebral arteries, is perfectly evident. This form of softening of the brain is analagous to the gangrene of the extremities induced by closure of the vessels. In both cases the death of the tissue is due to the abstraction of the supply of nutritive material; but the necrosed parts within the skull, not being exposed to the action of the atmosphere, are rarely decomposed. This only happens when the embolus, that has stopped the vessel, comes from a suppurating spot, and transfers with it a tendency to suppuration. Closure of a vessel induces necrosis more readly the later, and more incompletely a collateral circulation is established. If the degeneration of the walls of the vessel that has induced a thrombosis of the cerebral arteries be extensive, the collateral branches, the elasticity of whose walls is diminished, cannot dilate sufficiently to supply the place of any large arteries that may be closed, hence the partial anemia is only partly removed, and the anemic part softens. Whether or not, closure of a cerebral artery by an embolus shall induce necrotic softening, depends chiefly on the seat of the obstruction, since in such cases the walls of the vessels are usually healthy and distensible. If, as rarely happens, there be anemia in the parts chiefly supplied by a vessel which has been obstructed by an embolus before reaching the circle of Willis, it will generally pass off soon, and no necrosis results ; if, on the other hand, a vessel be closed by an embolus beyond the circle of Willis, necrosis is the usual termination of the partial anemia.—*Niemeyer.*

Many authorities have explained the variation of symptoms, particularly the occurrence and disappearance of paralysis, as a peculiar symptom of softening of the brain. This is a false view of the matter. In cases where the symptoms have presented this variation, if softening of the brain be found on autopsy, the softening did not occur at the time the symptoms changed. but at a later period, when they were constant. On the other hand, the occurrence and disappearance of circumscribed paralysis are certainly, to some extent, characteristic of partial anemia of the brain, resulting from atheromatous degeneration and thrombosis of small arteries, and are rapidly removed again by the establishment of collateral circulation. (The occurrence and disappearance of circumscribed paralysis do not render it certain that there is thrombosis of small arteries of the brain, the same symptom is also seen from small extravasations.) If a large artery, or several small ones going to the same part of the brain, be closed by thrombosis, a collateral circulation cannot be established, particularly if the degeneration of the walls of the vessels be extensive, and then the affected portion of brain loses its functional power for ever. There are some parts of the brain—for instance, the large medullary masses of the hemispheres—that may be destroyed without any apparent loss of function. This fact, which is proved by numerous examples, explains the occurrence of those cases of softening during whose course there have never been any symptoms of paralysis. We must know this in order to understand that it is occasionally quite impossible to diagnose softening of the brain, and to distinguish it from senile atrophy, because the most important point for differential diagnosis is wanting. But, far more frequently, the results of thrombosis of a large artery, or of numerous small ones, extend to parts of the brain, whose loss of function induces paralysis, and even hemiplegia, particularly to the corpus striatum and thalamus. The arteries supplying the great hemispheres, and the above-mentioned large ganglia lying in them, with blood, are the ones that are most frequently closed by thrombosis; and, even if the anemia directly resulting from the obstruction, and the consequent softening, do not extend to the corpus striatum and optic thalamus, these parts will readily lose their functional power from the collateral edema about the point of softening, or from the capillaries of the entire hemisphere being compressed by it. If a large vessel be closed by a thrombosis, originating from the walls, and growing slowly, or if numerous smaller arteries be closed one after the other, the paralysis comes on slowly, and increases gradually. Cases running this course are the most readily recognized; for, although gradually forming and slowly progressing, paralysis also occurs in many other cerebral diseases; if this symptom arises in an old marasmic patient, who has had the previously described symptoms, we must first think of thrombosis of the cerebral vessels, and of the form of softening of the brain, at present under consideration. While the symptoms of paralysis, which are very often and unaccountably accompanied by contractions of the paralyzed part, gradually increase and extend, the patients become more apathetic, grow imbecile, pass their excrements involuntarily, have bedsores, and finally die of marasmus and coma. The course is different when a large vessel or numerous small ones are rapidly closed by thrombosis. In such cases hemiplegia occurs suddenly, and the symptoms may be very similar to or identical with those of cerebral hemorrhage.—*Niemeyer.*

Partial anemia and necrosis of the brain due to *embolism* are also almost always preceded by characteristic premonitory symptoms. But those are not brain symptoms, as they were in the previous form of anemia of the brain; they are those of the diseases which almost exclusively cause embolism of the cerebral arteries, that is, of valvular disease of the heart, of endocarditis, or of severe destructive disease of the lung. The occurrence of those premonitory symptoms, and the presence or absence of valvular disease, endocarditis, or severe disease of the lung, have such an effect on the diagnosis between embolism of a cerebral artery and other brain diseases, that with the same set of symptoms we may diagnose embolism if we find them, and exclude it with certainty if they are absent. The sudden shutting off of arterial blood from the part of the brain supplied by the obstructed artery, instantly arrests its functional power. Experience shows that emboli almost always lodge in the arteria fossæ sylvii, particularly the left one; as the closure of this large artery causes great anemia of the parts supplied by it, we may readily see that sudden hemiplegia, especially of the right side, is the most important symptom from which we can diagnose embolus in the cerebral arteries, if it occurs in a patient with valvular disease.

DELIRIUM TREMENS.

By J. G. ALBERS, M. D., Cincinnati, Ohio.

It was on the night of the 25th of December, a very cold night, when I was called to see Mr. C. who was suffering from delirium tremens in the first stage. I had no difficulty in diagnosing the case, the previous habits of the patient and the symptoms present left no doubt in my mind that whisky was the cause of the disease before me.

Mr. C. had been accustomed to taking his dose of stimulus daily; however on that morning, while riding out of town, he imbibed to excess, and was thrown out of his buggy. At my arrival—10 o'clock P. M.—I found the patient's pulse full and hard; the face flushed; the head hot; the eyes injected; the look wild and frightened. The tongue was dry and red, and, on exposing, trembled like a leaf. The intelligence was not much confused, but evidently the stage of delirium was fast approaching. The patient would lie down on the sofa, pick up the blankets, move them here and there and everywhere, behind him, in front of him, and on each side of him; then get up and hurry away to the door and windows, and exclaim "No rest for me." appealing to his wife and me for help.

Mr. C. had been debauching, and had been in a state of intoxication all day; therefore, in order to get rid of the alcohol and decomposing contents of the stomach, I administered an emetic. After emesis, the patient became somewhat tranquil for a time. The violent jerking of the abdominal muscles, with which he had been suffering, diminished a little, and he rested about ten minutes, but did not sleep. After ordering a cold foot-bath, and cold effusion to the head, I directed at 11 o'clock the following mixture:

℞ Chloral Hydrat.
Potass. Brom. a a ʒii
Aq. Dest. ℥ii

S. A teaspoonful every half hour until sleep is produced.

12 o'clock. Two teaspoonfuls of the medicine not having effected any marked relief, I gave a tablespoonful at once.

1 o'clock A. M. Pulse more regular; the violent symptoms have subsided; patient is slumbering. I ordered the treatment to be continued in teaspoonful-doses in case Mr. C. should wake up in less than two hours.

Dec. 26. 9 o'clock A. M. Patient slept some during the night; has taken no more medicine; his face is still flushed; pulse feeble and quick; slight trembling of the hands; experiences difficulty in passing his urine; has great thirst. The expression of his countenance is that of fatigue; the tongue red and cracked. I ordered:

℞ Ol. ricini ℥ii
Ol. tiglii gtt. iij

S. A tablespoonful in whisky every hour until it operates.

4 o'clock P. M. Patient's bowels have moved five times; passes his water without difficulty; he feels better. At bedtime he is to take one tablespoonful of the chloral mixture.

Dec. 27. 10 o'clock A. M. Patient slept well last night and is attending to his business this morning. He feels all right.

It is not necessary for me to say anything about the origin, nor of the different varieties and stages of this disease, but a few words about the treatment of this malady may not be entirely unacceptable.

The treatment pursued in some of our hospitals is without stimulants as far as alcohol is concerned. The patient is to be purged; is put upon bromide of potass. and digitalis, and at night gets his dose of opium; when noisy, he is confined to a separate room and retained in bed by straps on hands and feet. I have seen patients die, after being in such a position three or four days, and I always was in doubt whether it was the disease or the position that killed those wretched beings. It is a well known fact, that any muscle of our body, when held either in a relaxed or contracted condition for some time, gets tired and becomes temporarily paralyzed. I have known a teacher, who punished his pupils by giving them a slate in each hand to be held up with outstretched arms above their heads, and I never saw a boy who could stand this procedure longer than twenty minutes. At Harper's Ferry, Va., during our late war, a man had been caught several times in the act of selling whisky to the soldiers. To give this citizen a capital punishment, the commander of the post ordered him to be tied to the ground, on his back, with outstretched arms and legs, for twenty-four hours. The pitiful moaning and loud lamentation of this man are ringing in my ears to this very hour. After eighteen hours, he was released; but imagine my astonishment when I saw that the poor fellow could move neither hand nor foot. He was carried into a tent and medical aid summoned.

In regard to the use of stimulating remedies, as alcoholic liquors, I will say, that several years ago, in Europe, one class of physicians attempted to cure all cases of delirium tremens by stimulants, and when disappointed in the result, they then fell into the other extreme and gave no alcoholic liquors of any kind. At the present time some members of the profession employ stimulating remedies, but with circumspection, and tell us that this method of treatment has diminished the mortality of the disease, and in most cases renders it curable.

Patients with delirium tremens should not be confined. They should be allowed to walk about snd enjoy the company of others as much as they choose, merely taking care that someone is near them to prevent accident. They should not be opposed nor argued with; nor should they be told that they are stupid fools, with hallucinations; that nobody is going to hurt them; that they do not see objects which they think they do. On the contrary, we must remember that a sick person cannot be handled too gently. We should always agree with them, humor and soothe them in conversation, and try and make them believe that we are taking the necessary steps to accomplish what they wish and to prevent what they fear.

ALCOHOL.

So much has of late years been written in favor of and against alcohol, both as a component part of one's daily beverage and as a remedial agent in disease, that it seems very likely many years must elapse ere the vexed question, "Is alcohol necessary for the maintenance of a certain standard of health or not?" can be truthfully answered. What we want proved is this, does the moderate use of wine, spirits, or beer, keep us in more robust health, and help us to bear the fatigue of mind and body better than abstaining from such stimulants *in toto*. How is such an end to be accomplished? Chiefly by the aid of the medical profession who have more opportunities of judging of the pernicious or good effects of alcohol moderately taken in health, and given in disease, than any other class of persons.

England is not the only sufferer from drunkenness, and lately the French Academy of Sciences has been discussing how best to restrain it. The report of a committee on the subject presented by M. Bergeron, maintained that fermented beverages, even when used moderately, are more dangerous than is generally believed. He puts down the slightest degree of exaltation of the cerebral action as but the first stage of drunkenness, and urges that it is a sensation full of peril, inasmuch as it induces the taking of more and more. No matter what the fermented beverage, it is the alcohol that produces the effect, therefore the report considers common brandy as the type of these drinks. Thus *eau-de vie*, in a very moderate dose, occasions congestion of the stomach, augments the secretion of the gastric juice, and excites contractions. If this is habitually caused, the effects become stronger and more persistent, and the liquids become changed. Inflammations, ulcerations, thickenings, etc., of the coats of the stomach come on, and paralysis of its movements with most of its secretions, render it incapable of digesting food. Hence arise painful sensations, burning at the pit of the stomach, vomiting of various liquids, loss of appetite, slowness of digestion, and these may go from bad to worse, and even give rise to cancer and consumption. But the evil does not stay here, for the alcohol being, absorbed into the circulation, exercises its deplorable influence on the brain, liver, lungs, and kidneys. M. Bergeron's report traces the many ills thus caused by alcohol with much skill, and urges that all alcoholic beverages act more rapidly and energetically when the stomach is empty than when taken with the meals. It is the habit of taking beer, wine, or spirit, on an empty stomach, that is producing such sad effects. Those who merely drink a glass of wine pure, with or after a meal, or a liqueur, are however warned that this, though not producing the evils of alcoholism, is likely to give rise to trouble in digestion. Wine (French wine, we presume) diluted with two-thirds of water, is recommended as a wholesome drink with the food. Beers and ciders when generally used, will scarcely give rise to either acute or chronic alcoholism, but are pronounced, though possessing the qualities of a good beverage, to be not equal to wine diluted as above. A pint of beer is put down as enough for a meal. The use of brandy or any other liquor at any time is utterly condemned. The conclusion then of this report, accords with that of many that have preceded it. Spirits in all forms are bad. Good beers in small quantities are tolerably wholesome for men actively employed. Light wines, diluted at the time of drinking them, are the most wholesome of the beverages, and even these should not be taken except with the meals.

Alcoholism, everyone knows, is on the increase, and it must be very gratifying to all who advocate abstinent principles to know that a decidedly successful temperance meeting took place at Exeter Hall on 31st of October last, where the speakers were physicians and surgeons only, all being staunch abstainers, and the audience, which was most attentive during the whole of the meeting, included many members of the medical profession. Dr. Collenette, of Guernsey, one of the speakers, said he had been a total abstainer for thirty-five years, and for that term likewise, no intoxicating liquors had ever been seen on his table; of course his wife was an abstainer too, and his children, numbering eleven, were reared and brought up on the temperance principle. At the time the Dr. signed the pledge his father and mother, aged seventy-six and seventy-four respectively, did so likewise, and both lived to be over ninety-one years of age, enjoying within a few days of their death very good health, both bodily and mentally. The remarkable feature here is the great age, and the sudden transition from taking wine and beer to leaving it off altogether without any injurious results. As far as regards alcohol as a medicine, Dr. C. said from the time he turned teetotaller he never ordered it but twice, and both these cases were after consulting with other medical men, who advised the use of a stimulant. But both these cases proved fatal. During the visitation of Guernsey by cholera in 1849, though many drunkards and moderate drinkers fell victims to the disease, not one teetotaller attacked succumbed. Dr. C. states that in thirty years' practice he has never seen a thorough abstainer with gout or rheumatism. At the termination of his speech he advised his audience, if they valued their happiness, their health, or their lives, to banish from their houses, tables, and sick rooms every particle of intoxicating drinks, which produces weakness, not strength, sickness, not health, death, not life.

Mr. Bayley endorsed all Dr. Collenette said with regard to the evil effects of alcohol dietetically and remedially taken, and thought that abstaining medical men were too thinly scattered, and that by advancing temperance principles their work was divine, and that in thus braving public odium and sacrificing temporal interests they must look for their reward from that source whence the "just shall receive all recompense." He believed that many people drink because they falsely think alcohol to possess nutritive, stomachic, restorative and other virtues; which it does not, and he further stated that the use of alcohol was incompatible with advanced chemical and physiological knowledge, and on the other hand, that total abstinence was a simple, efficacious and cheap remedy for an endless group of malignant diseases, requiring but to be appreciated to be applied; a new specific, both in physiological and material medicine, which possesses a power absolute, and a certainty hitherto unattained in the history of the healing art.

Dr. Beaumont, alluding to the indiscriminate use of alcoholic liquors, said they differed from all other beverages in the fact that they not only originate in an artificial and perverted taste, but that the desire for them increases in direct proportion to the indulgence, until both intellectual and moral powers are prostrated and brought into slavish enchantment, so that as a Christian, a physician, and a philanthropist, he had come to the conclusion that alcohol is a dire evil, for it is not—

1st. A natural product, so therefore can not be said to be given to mankind by God the Creator.

2nd. It is not essential to health.

3rd. Its action produces an abnormal state of the fluids and solids of the healthy body.

4th. It is not necessary in the general treatment of disease, but is calculated to intensify it.

5th. It is attended with great moral danger, and is apt to lead to depravity, vice, degradation, and ruin.

For are not alcoholic liquors a more fruitful source of crime than any other cause or causes combined? Is it not a fact that vice is in proportion to the amount of alcohol drunk, and that wherever there are unlimited facilities for alcoholic indulgence, there crime and all other evils flourish? Drink is the great curse of the nation. It brings under its hideous sway the strong man, the tender and delicate woman, the ingenuous youth, the attractive maiden, the refined scholar, the toiling artisan, it even conquers the man of science, and the Christian himself, and utterly overcomes those of whom we were persuaded better things.

Mr. Townson rather startled his audience by declaring that as the result of the treatment of patients under his care, he declared and believed at this very moment that if every drop of spiritous drinks were vanished from the midst of us, that medical men would not lose a single life entrusted to their care—nay, more, that they would save many. As surgeon to the Liverpool Post Office and the Telegraph Department, he observed that the men and boys who were total abstainers had better health, and could bear heavier work and exposure than those who took beer even in moderation. He advised boys to take milk porridge for breakfast along with bread and butter, in preference to tea or coffee, for in oatmeal and milk you have all the elements for making a strong boy and muscular man, which you have not in tea. Among six hundred police to whom the speaker has been surgeon for twenty-two years there are many abstainers, and the majority of them have never ailed anything for that length of time. Mr. Townson bore testimony that abstaining nurses could do more work and do with less sleep in comparison to others who drank even moderately. In Liverpool are a number of old coachies, a class of men we respect very much, who nearly all suffer from dreadfully ulcerated legs, but Mr. T. never saw a case in a total abstainer, nor yet of rickets in the children of abstainers, and, as a rule, he observed that such children cry then least. In conclusion the speaker said that he was fully convinced that total abstinence is consistent with the hightest state of health, with the strongest physicial vigour as show by men who earn their living on the sea, also by the army, and by day laborers who occasionally get soaked to the skin, and yet the disciples of temperance amongst them enjoy most excellent health. As a totally abstaining medical practitioner said the speaker, and exercising extreme caution in ordering stimulants, I know an amount of joyful happiness which I should not feel in any other course of life.

Mr. Bennett, of Winterton, Lincolnshire, said he had been a teetotaller for thirty-seven years, and during that time he had not used or prescribed a single drop of alcohol as a medicine. Alluding to the death-rate in cases of typhoid fever, which is from 16 to 25 per cent., he stated that he had attended upwards of 500 cases, and only 4 per cent died, which therefore proves that a virulent fever like typhoid can be successfully treated without stimulants. His obstetric practice ranging over 3,000 cases was dealt with on the same principle, and he never lost a single patient from flooding out of that large number. He asserted likewise that he had never seen a case of gout in a person who had been an abstainer for two years. Carbuncle, diseases of the stomach and liver always did well when alcohol was prohibited.

Dr. Edmunds had been a teetotaler for twenty years, and when handling cholera patients day by day, in Newcastle and Dundee, in 1853, he never had better health in his life. He quoted Dr. Gardner's great success in managing fever cases with milk instead of alcohol.

Dr. Higginbotham, of Nottingham, was prevented attending the meeting, but in a letter that was read, he said he was eighty years of age, had been nearly sixty years in practice, and for upward of forty he had been a teetotal doctor. His patients deriving every advantage from that method of treatment.

In the *Medical Temperance Journal* for October this year appears an article from Dr. Charles R. Drysdale, Physician to the North London Hospital for Consumption, in which he states that he has long come to the conclusion that the safest mode of living for the human race would be to abandon the use of alcoholic drinks altogether, " for I have seen," writes the doctor, " for many years past, multitudes of patients whose symptoms I had been able to refer to the drinking of immoderate and even moderate quantities of spirits or beer, whereas I must candidly say that I know of no large class of patients who are ill by reason of taking little or no stimulants. In the Consumptive Hospital there are never, in my experience, cases wanting of breaking down of the lung-tissue and death caused by the chronic tippling so alarmingly common among the poorer classes of London; and at the Metropolitan Free Hospital, to which I am also physician, the occurence of gout, dropsy, paralysis, bronchitis and liver disease from drinking is a matter of constant and undeniable occurrence in my experience. Dr. Anstie, unlike myself, being an energetic follower of the late Dr. Todd, of London. is wont to look upon alcohol as one of the best kinds of food for overworked literary men, but to me it seems that simple food and beverages give to the human animal all that is required for the building-up of the tissues with as little disturbance as possible to the circulation: when any one unaccustomed to the use of alcohol drinks wine, beer, or spirits, he feels giddy and uncomfortable, and it is only by custom that the noxious effects of stimulants in our nervous system is dulled, and is it worth the while of any of us to become less sensitive to such poisons? In fevers, alcohols may occasionally (tho' very rarely), be found to be a valuable remedy, and then it is far more useful to persons who have not been accustomed to it than to habitual drinkers. Havelock, Carpenter, and others have proved that alcoholic beverages do not render men more able to bear heat or cold, but the contrary. Dr. Jeanul, of the French army, denied that alcohol made soldiers fight the better; and in India the most courageous men are teetotalers. Statistics of life insurance societies show that moderate drinkers have not as good lives as abstainers. Tobacce smoking and alcoholic beverages are the most anti-hygienic habits of the country, but whilst stating the above I say that I should be extremely sorry to see anything like the Maine Liquor Law established in this country, as I think it a direct infringement of the right each one of us may have to manage our own health in ourown way. *Doctor*

PUNCTURE IN TYMPANITES.

The propriety of puncturing the colon for the evacuation of gas has occupied a good deal of attention at home and abroad. The subject was started by M. Fonssagrives, who related at the Paris Academy of Medicine eighty-four cases of tympanitis, and spoke of the operation as not serious. M. Depaul had previously related to the Paris Surgical Society a case in which the colon had repeatedly been tapped. The case was one of puerperal peritonitis, and it recovered.

There is no such novelty in the proceeding as M. Foussagrives seems to think, as will be seen in the sequel.

At the meeting of the Academy of Medicine of Paris on the 15th Nov., M. Piorry concluded the reading of his memoir on this subject in which he opposed the views of M. Foussagrives. The risk of puncture M. Piorry regards as considerable, perhaps greater than to cut down upon the cæcum and then to open the bowel. We ought, therefore, to exhaust all other means before having recourse to this, and to determine the exact anatomical and physiological cause of the accumulation. We should use the œsophagus tube and the rectum tube in addition to other means.

We may here name that Professor Dolbeau, of the Beaujon Hospital, has punctured the intestine in strangulated hernia to facilitate reduction, and stated lately at the Surgical Society of Paris that the practice is successful and not dangerous. Moreover, Dr. Douglas Morton relates in the *Richmond and Louisville Medical Journal* two cases of hernia, in which he tapped the strangulated bowel.

Sir Thomas Watson, in the new edition of his "Lectures" remarks:—

"There is one further expedient which I should recommend in these trying cases, which we know (no matter how) are of necessity fatal. In cattle that are 'blown' by overfeeding on wet clover, a rough procedure, that of piercing the distended bowel with a hay-fork, has often been practised by farmers with complete success. The distress from extreme distension of the intestines by wind is so intense, the craving for relief from that distress so importunate, and the comfort from obtaining it so great, that, were I the subject of such pressing and prolonged torment, I should beg to have the inflated bowel eased by puncture with a fine trocar, even if I might (what is improbable) so lose a day or two of painful life. Since this thought was forced upon me by sufferings that I had personally witnessed, I have been gratified to learn, from a communication made to the Clinical Society by Mr. Thomas Smith, that the same thought, as was natural, had occurred to others before me, and been acted on with all the success of which it was capable; by Dr. Braxton Hicks, as well as by Mr. Smith, in this country; and by more than one physician on the Continent."

Those who think it novel have been carrying on an active correspondence in the *British Medical Journal*, and Dr. Clifford Allbutt and severel others have put in a claim for priority. It will be seen from some quotations of the the letters to our contemporary as well as from what has preceded, that the novelty like many others is old enough.

"The operation might have been first suggested by the practice advocated by the older surgeons of pricking with round or triangular needles the gut distended with air in the course of the operation for hernia," says Mr. G. Symes Saunders, Mr. Jonal, and continues, "Pare, Corneille de Soolingen, and Pierre Dionis, among other recommended the practice. Heister, in his work on 'Surgery' (Eng. ed. p. 74, 1750), suggests that in pneumatocele, or 'hernia flatulenta,' if ordinary remedies fail, the scrotum should be perforated with a trocar, and its contents thereby discharged, 'which will demonstrate whether it was wind or water.' In the same work, Heister expresses doubts of the success of the operation of paracentesis in tympanites. According to Sprengler, in his 'Histoire de la Medicine,' vol. ix. p. 181, Francois de Paule Combalusier was the first who successfully employed the trocar in tympanites. (Combalusier, 'Pneumatopathologia,' a French edition of which appeared in 1754, 'Traite des Maladies Venteuses,' traduit du Latin, par Jault, vol. ii. in 12). Benjamin Bell, having observed that this operation was attended with but slight danger in the lower animals, advised that the intestine should be punctured in tympanites. Callisen, who used Petit's trocar, states that paracentesis may be useful as a palliative ('Syst. Chir. Med.,' par ii., p. 52). Charles Bell, in his 'System of Operative Surgery, vol. ii., p. 186, does not regard with much favor the practice of piercing the gut with the trocar in intestinal tympanites. C. B. Zang gives very precise directions for the performance of the operation. He plunges a long and fine trocar in the middle of a line drawn from the anterior extremity of the second left false rib to the anterior superior extremity of the ilium of the same side, to the depth of four or five inches. In this way the instrument strikes the descending colon without piercing the mesentery. (Zang's 'Operat. Th.,' iii., p. 289). Zang states that the operation is as devoid of danger as ordinary simple puncture, because, after the withdrawal of the canula, the wound in the intestine does not exceed half a line in extent. In the 'Dictionnaire de Medicine et de Chirurgie,' ed., 1835, L. Ch. Roche, in his article on 'Tympanite,' after recommending the ordinary remedies and attempts to draw off the gas with a syringe, states that, as a last resort, the abdominal walls may be punctured; and, although he considers the operation to be attended with grave danger, states that it has been practised a certain number of times with success. Among more modern works on surgery, Chelius gives similar instructions for the operation of paracentesis in distension of the alimentary canal with air, when the ailment is idiopathic, and not a symptom of any other disease. (South's edition, vol. ii., p. 495). Olivier operated on twenty patients in Bolivia, South America, of whom eight recovered in three weeks; the others died, probably from not having been subjected to treatment till too late. The cause of the disease was attributed to overloading the stomach with half-cooked vegetable food, and drinking badly fermented liquid prepared from maize. (Vide 'New Sydenham Society's Year-Book,' 1861; and Schmidt's Jahrbucher, vol. iii., p. 308)."

"A little boy, æt. three years, suffering from peritonitis, attended with great pain and tympanitic distension of the abdomen, presumed to be tubercular, says Mr. G. D. Brown. Opiates were administered freely, nevertheless, the pain was intense, and the chance of saving the boy appeared to be hopeless. To give some ease to my patient, with a small trocar I punctured and removed one or two drops of pus and a quantity of fœtid air. Immediate relief followed. The operation was repeated in a few days owing to re-accumulation, and the patient recovered.

"One case which occurred twelve years ago I well remember," says Dr. Wilkes; "Mr. Stocker called me up in the night to see a man just admitted for intestinal obstruction, and as his sufferings were great we put a trocar into his colon. It gave him great relief, and the operation was attended by no harm." The case is reported by Dr. Hilton Fagge in the *Guy's Hospital Report*, 1869.

"At present, we can say that in extreme tympanites after failure of the remedies it is highly desirable to tap the intestine," says Dr. Braxton Hicks, and continues, "perhaps when we know more of the operation we shall find the risk of extravasation less than supposed, and then we may say that in such cases the operation is not only highly desirable but necessary."

EXTENSIVE WOUND OF THE ABDOMEN—TOLERANCE OF THE PERITONEUM.

Dr. Ramsey states that, in the *American Journal of Obstetrics*, may be found a paper by E. R. Peaslee, M. D., L.L. D., on injections into the peritoneal cavity, etc. He then presents the following case:

"A man, a sot, received a cut, an inch long, in the abdominal walls, just below the umbilicus, and fully half as long again as the parietal peritoneum. Immediately the abdominal viscera began to escape. A messenger started for town, four miles away, and the wounded man, supporting the escaped viscera in his breeches with his hands, walked to the house, more than a quarter of a mile from the part of the field he was in when he got the wound. It was a very hot day in the latter part of July. When Dr. Paxton and myself reached him, perhaps two hours after the wound had been made, we found him upon the floor, pale, breathing rapidly, and with a pulse rapid, thready, and hardly perceptible. He was largely under the influence of liquor at the moment the cut was made, but we at once gave him a drachm of laudanum in two ounces of whisky. His stomach, with a peck of intestines, lay upon his belly, and the abdomen was nevertheless distended. The viscera were carefully washed with water just from a spring running within forty steps of the door, and of the summer temperature of springs of this locality, 60 F., and then slowly and carefully examined and returned. If they had received any injury, we failed to discover it. Having accomplished the return into the abdomen of the viscera, a common tin funnel was held in the wound, and half a gallon of water, just from the spring, was poured through into the peritoneum; the funnel was taken away, and he was turned upon his side, in which position a very considerable quantity of blood-red fluid was discharged through the wound. The funnel was repeatedly introduced, and water poured through it into the peritoneum, and made to be discharged by placing the man in the proper position, until the water came from him pure and limpid as it was when put into him. The wound was then closed by suture; a fly blister, brushed over with spirits of turpentine, was applied to the whole abdomen, and a very tight bandage of *thick* cloth around his body, and upon that, bags of pounded ice were placed, and grs. xx. of calomel, with grs. ij. of opium, were administered. Ten days afterwards, he presented himself at our office, having walked four miles to town."—*Nashville Journ. of Med.*

MEDICAL GLEANINGS.

Injection of Morphine into the Substance of Muscles for Tetanus.—M. Demarquay has communicated to the Medical Section of the Academy of Sciences two cases of traumatic tetanus successfully treated by intramascular injections of morphine. He began by an injection, by means of the usual hypodermic syringe, into each masseter, and into the muscles of the neck on each side of the spinal column. The wound being painful, he also injected morphia into the muscles in its neighborhood. Immediate relief followed. When the contractions returned after a few hours, the injections were repeated, and whatever muscles suffered were thus treated. Thus, the muscles in the region of the back, the loins, and the abdomen were injected, as was also the sterno-clydo-mastoideus; while the course of the diaphragmatic and pneumogastic nerves were respectively selected for the purpose of restraining spasm of the diaphragm, and the difficulty of deglutition from the contraction of the œsophageal muscles.

Tobacco.—In the November part of the *Royal London Ophthalmic Hoipital Reports*, Mr. Jonathan Hutchinson gives an account of his further experience in respect to amaurosis supposed to be due to tobacco. It will be remembered that he has previously written on the subject, his first paper appearing in the *London Hospital Reports* for 1864; his second in the *Medico-Chirurgical Transactions* for 1867. He tells us that "idiopathic amaurosis" appears in great disproportion between the two sexes. In his first series the numbers were thirty-seven men and three women; in the second thirty-four men and five women; in this third series we find twenty eight men and only one woman. We should be very glad to learn from any of our foreign correspondents in countries where both sexes smoke, whether the same disproportion of cases of amaurosis is observed in men and women. Mr. Hutchinson has carefully investigated other possible causes, and still believes that tobacco is the real one. He notices that most of the sufferers smoked shag, and pronounces that "the most deleterious form of tobacco." But we take leave to remind him that most of his cases are hospital ones—the patients therefore poor—and shag is the *cheapest* form of tobacco. Moreover, it is perhaps the most commonly used form, even among those who can afford a more expensive quality. Mr. Hutchinson has found in the early stages that the vision improves when the disuse of tobacco is real and complete, and therefore considers it a duty to urge complete, immediate abstinence.

ELECTRO-CAUTERY FOR PILES, ETC.—Our *confrere*, M. Lucas-Championniere, reports in his *Practical Journal* that M. Verneuil, at the Lariboisiere, has treated piles by running through them at several points the electric-cautery, at a dull red heat, which obliterates the vessels without setting up active inflammation beyond. Atrophy follows. Encouraged by the constant and rapid success of this method, M. Verneuil has also applied it to erectile tumours. Some very important successes resulted, and only one accident. An infant at the breast, with an enormous rapidly growing erectile tumour of the cheek, was subjected to this treatment, after other means had failed; but unfortunately erysipelas came on, and proved fatal. The method is to cauterise the tumour in as many points as the surface admits, wait the falling off of the scabs, and then cauterise afresh wherever any vessels remain. Ordinary cautery may be used by mounted needles, but the electric instrument is far superior. It is heated instantaneously, and does not affect the surrounding tissues.

IRON A CAUSE OF BRONCHOCELE.—For several years past Dr. Seitz has been convinced that chalybeates, so far from curing, increase goitre, and in the *Med. Central Zeit*, he expresses his opinion that the disease may be caused by iron whenever there is any predisposition to it or it has been known in the family.

He relates cases in which, under the preparations of iron given to patients, the thyroid gland increased in size; but was diminished by iodide of potassium. "Similar results," says Seitz, "are to be seen in the glandular enlargements of scrofulous children." He conjectures that minute quantities of iron will be found in the water where goitre is endemic, and that even iron pumps may be the source of the disease.

DEATH AFTER HYPODERMIC USE OF MORPHIA.—Dr. David Stanton, of Beaver County, Penn., recently elected State Auditor, died suddenly a few weeks ago. "He was suffering from erysipelas," says the account, "and had injected morphia into his arm. Sleep followed, and he never awoke." It is to be regretted that a valuable remedy should be so misapplied as to bring it into disrepute. Some contingency might arise which would justify the hypodermic injection of morphia in erysipelas; but the general rule is decidedly adverse. Other cases have been reported from time to time, of death following speedily the same process in various forms of disease. Unfortunately the circumstances are not given with sufficient exactness to furnish a satisfactory explanation, while the unfortunate results have served, at the same time, to frighten practitioners into an entire abandonment of the remedy. We have known the physicians of a whole neighborhood, even of a populous city, permanently deterred from the employment of medicines by subcutaneous injection, by reason of a single fatality resulting from, or following, it. A full history of all such cases should be preserved and published, to furnish materials for a full and just explanation. When this shall have been done, we apprehend there will always appear, either some other cause of death than the injection, or some obvious conditions of the patient, which should have forbidden its use.—*Pacif. Medical and Surgical Journal.*

COUNTING THE PULSE.—Some writers tell us the pulse can not be counted if it is above 150—that it can not be easily counted if above 140. If they mean that this can not be done by counting singly, they may be right. But if they intend to say that it is impossible to ascertain the number of pulsations, they are not right. By counting every second stroke of the pulse, there is no difficulty in getting the exact number, even if it be 200 in a minute. By this method, the result of the count must of course be doubled. Even if there were 300 pulsations in a minute, admitting the possibility of so many *distinct* impulses, the number could be ascertainen without diffiulty by counting every third stroke and multiplying the result by three. Sounds may be counted in like manner—for instance the puffs of a locomotive in rapid motion. It requires but little practice to master the art. The tick of a watch affords a good exercise in sound. Let the watch be held to the ear with one hand, while the finger of the other hand strikes on the table every second, or every fourth tick. It will be found easy to enumerate in this way 300 ticks of the watch in a minute.—*Pacif. Medical and Surgical Journal.*

EXTROVERSION OF THE BLADDER.—Dr. John Ashhurst, Jr., Surgeon to the Episcopal Hospital, Phila. (*Am. Journ. Med. Sciences*), refers to twenty cases (including his own) in which plastic operations have been resorted to during the last eighteen years, for the relief of exstrophy of the bladder. Of these 20 cases, 14 were absolutely successful, 3 were failures (Holmes 2, Wood 1)—the patients' condition being, however, in no degree rendered worse by the operation—while 3 terminated fatally (Richard, Pancoast, Wood), though in only one (Richard) was death attributable to the interference of the surgeon. Of the 20 patients, 16 were males and 4 females; 13 were under and 5 over wenty years of age, the age of the other two not being mentioned.

SLEEP-WALKING IN CHILDHOOD.—Dr. West, in his *Lumleian Lectures*, attributes somnambulism, in its most marked forms, to undue mental work, not always, indeed, on account of the tasks being excessive, but sometimes on the over-anxiety of the child to make progress. He adds, "I have not yet known a poor person's child a somnambulist." The inference is, that the children of the poor are not subjected to intellectual exercise and excitement, which may hold good in England, but certainly does not in America. A much better explanation, in our belief, is that somnambulism depends mainly on a nervous organization of peculiar sensitiveness, which is stimulated to morbid and extravagant development in the children of the rich, but repressed and blunted by the attrition of humble life.

ULCERS OF THE OS UTERI—UTERINE PLUG.—M. Despres, Surgeon to the Paris Veneral Hospital for females, has published a work, which is referred to in the *London Lancet*, recommending local treatment almost exclusively for ulcerations of the cervix uteri, and attaching equal value to different caustics, such as the red-hot iron and nitrate of silver. He says they all cure in about the same time. He also extols the *plug*, made as follows: take a small piece of coarse gauze, in which a pledget of cotton-wood is placed, after it has been filled with about fifteen grains of powdered alum. Fold the gauze over the wool, and tie the ends of the former with a thread five or six inches long, which is allowed to hang out of the vagina, to facilitate the removal of the plug. The latter should remain twenty-four hours.

DR. KRAUS ON VESICAL CATARRH.—Our able *confrere*, Dr. K., has recently published the results of his experience in vesical catarrh. (*Wien. Med. Zeit.*) He thinks that the history of renal calculus is unfortunately ill understood, and he has recently watched a case of stone in the kidney descend into and make its exit from the bladder. It is just as difficult to cure vesical catarrh, as it is easy to cure gonorrœa. The greatest prophylactic remedy against catarrh of the bladder is the employment of the scientific treatment of gonorrhœa, and Dr. Kraus protests energetically against all brutal introduction of irritating substances into the male urethra. Ricord says that the great majority of vesical catarrhs are contracted from ill-treated gonorrhœa. The extension of the inflammation of gonorrhœa takes place most frequently in the acute stage of the disease. "I have, as you may suppose," said Ricord, "very numerous patients who before coming to me had been with charlatans, and others who came as soon as they were infected. It would be unseemly for me to make a merit of it, but with my method of treating gonorrhœa I rarely see disagreeable results, and never do I meet with vesical catarrh. Among my other patients as many as 80 per cent. have consecutive affections." Auzias Turenne agreed with Ricord that vesical catarrh was often caused by the extension of gonorrhœa to the bladder. In one case where a patient had been cured by him of gonorrhœa, Dr. Auzias Turenne showed that the patient had vesical catarrh. He took some of the mucus passed by this patient and injected it, mingled with water, into his own urethra. An acute attack of gonorrhœa followed. On two other occasions he made a similar experiment with mucus from the urethra of persons suffering from catarrh of the bladder, but failed to produce any effect. At the same time he was convinced that gonorrhœa was the chief cause of vesical catarrh.

In reference to acute catarrh of the bladder, Dr. Kraus repudiates diuretics, stimulants, and all the mineral waters that have been so fashionable, and he directs the patients to drink a quantity of distilled water. This, although it increases the quantity of urine by diluting it, renders it less irritating. It should be taken neither hot nor cold, and can be flavored, if more agreeable to the patient. Tepid baths are also of great service.

TRANSFUSION IN THE ASPHYXIA OF A NEW BORN CHILD.—DR. DE BELINA gives the details of a successful case of transfusion in a child under these circumstances: A Russian lady, in the eight month of her pregnancy, was severely shaken by a collision on a railway. The pains of labor immediately supervened, and, on removal to an adjoining hotel, Dr. Belina was called in. He found the membranes ruptured, the os fully dilated, and the head presenting. Sharp expulsive pains soon came on, but, when the head was born, it was found that the neck was surrounded by two coils of the cord. It was found impossible to release them, and the cord was accordingly divided with scissors, and he endeavored to terminate the labor. Unfortunately, the evolution of the shoulders lasted for some minutes, and the infant became asphyxiated and violet. The cardiac beats were much enfeebled. For ten minutes he fruitlessly applied the ordinary means of restoring suspended animation. The beats of the heart became still feebler, and he determined on resorting to transfusion. The difficulty, however, here occurred that no one was willing to be bled for the sake of the child, and he therefore employed the blood flowing from the placenta of the mother, which was spontaneously discharged. The blood was defibrinated with a small piece of whalebone. and thirty grammes (about an ounce) was injected into the umbilical vein in several portions by means of a glass syringe. Immediately after the injection the infant shivered, and presented fibrillar contractions of the muscles of the face, at the same time drawing a long breath. The beats of the heart became stronger, and the respirations regular. The next morning it took the breat, and is now a healthy child, nearly a year old.—*Gazette Medicale de Paris.*

INFECTION PURULENTE AND OSTEO-MYELITE.—An important clinical fact has been evolved from the discussion which has taken place on the subject of *Pyœmia* in the Academy of Medicine at Paris, namely, the frequent coincidence of osteo-myelite in cases of the former—a coincidence first brought to notice by M. Gosselin, and confirmed by M. Demarquay, who, although not going so far as to lay it down that this secondary traumatic lesion is the cause of purulent infection, are supported in their views in regard to the connection which exists between them by the researches lately made by MM. Neumann and Bizzozero in the *hœmatopoietic* function of the marrow of bones, and supported by the statements of Dr. Liddel in his "Memoir on the Surgury of the War of the American Rebellion." According to him, osteo-myelite occurs much more frequently in civil life than is generally suspected, and, as in the army, may take place spontaneously, as well as in a traumatic form; and it often occurs in those cases of wounds or injury where the patient suddenly becomes seriously ill without apparent cause. It is much more dangerous than mere periostitis; and, inasmuch as the marrow of bones, when inflamed, presents a peculiar tendency to undergo suppuration, the affection is much more calculated to give rise to pyæmia than is abscess in other parts of the body—the reason being that the *contagium* from the marrow is more readily absorbed than that from other tissues, and also perhaps because medullary suppuration is more exposed to become pernicious than that in other tissues. It not unfrequently happens that osteo myelite produces purulent arthritis by contiguity. When situated in the limbs it has a tendency to extend to the trunk, although the joints nearest its seat are liable to become affected in the first instance—the cartilages in such cases being perforated by spots of inflammation, penetrating the extremity of the bone.

With regard to *treatment*, osteo-myelite, whether traumatic or spontaneous, is extremely dangerous, and requires the prompt excision of the member, in order that life may be saved. Disarticulation is in general preferable to amputation; but, if amputation be performed, it is essential that it be so above the part of the bone implicated in the disease. Secondary disarticulation of the stump in chronic osteo myelite has been practised with success.

DELIRIUM TREMENS.—Dissatisfied with opium, chloral, and digitalis in this disease, M. Decaisne has tried the expectant method, and finds in several cases that the patients did very well. Absolute abstinence from any fermented liquor, a simple diet, a dose of Epsom salts, a tepid bath of an hour's duration every day, such were his orders. In five days on an average the patients were almost cured, a result closely corresponding with that obtained by M. Decaisne in the thirteen cases treated by drugs, in these last the great relief being obtained in five days by opiates, and in six days by digitalis and chloral. It may be suggested that there are many cases of delirium tremens that might be left to expectancy with confidence, while others would scarcely be so abandoned by a pru ent practitioner.

ON THE EFFECTS OF DISEASED MEAT AS FOOD.—M. Weber having submitted to the Paris Society of Practical Medicine some observations on typhus, and the employment as food, during the siege of Paris, of the meat of cattle that had suffered from aphthous affections, diarrhea, and typhus, M. Vatel expressed his belief that the use of such food was innocuous, provided it was sufficiently cooked. He had, nevertheless, observed the occurrence during that time of a large number of cutaneous diseases and of boils. He was also aware that since 1814, a prejudice has existed against the use of horse flesh, it being considered as giving rise to hæmorrhoids and boils M. Danet observed that M Brochin had proved that, except as regards children, no special epidemic was due to alimentation; that typhoid fever, which had prevailed in October, November, and December, 1870, was due to over-crowding; the diseases which prevailed in January and February, 1871, to the influence of cold; and scurvy in March and April to the want of fresh vegetables.

BROMIDE OF POTASSIUM IN EPILEPSY AND IN INSANITY.—Professor Ludesdorf (*All. Wien. M. Zeit.*, Nov., 1871), says that in frogs cataract appears after the use of bromide of sodium, but not after bromide of potassium. The experiments of Eulenberg and Guttmann show that this remedy, when injected in doses of two to four grammes daily in rabbits, produce death in from ten to forty minutes with symptoms of paralysis of the heart.

It also killed in like doses when introduced into the stomach. Smaller doses caused slowness of pulse, and paresis of motion, and sensation and increase of urine. According to these observers, bromide of potassium is a poison to the heart—just like potash salts, and it paralyses the excito-motory ganglia. It also acts as a poison on the central point of motion, sensation, and reflex action in the brain and spinal cord. Labord (*Arch. de Physio.* N., 1869) took sixteen grammes of the salt and felt a salt taste, thirst and sallivation, excessive desire for sleep, stupor on awakening, and melancholy; vertigo, the ground being ill felt beneath his feet; ataxia, slow pulse, loss of will, loss of sensibility of throat. Frogs poisoned with the salt could no longer be made tetanic by strychnine. The hypnotic effects of the salt are affirmed by some. Voisin in his work, 1866, recommends 3.10 grammes of the salt daily in case of epilepsy, until no nausea occurs after the touching of the throat with the finger. He asserts that the reflex act of vomiting, just like the epileptic fit, comes on by means of the activity of the medulla oblongata and the upper part of the spinal marrow, and that the lowering of the excito-motory activity of the central part exercises a favorable influence on the putting back of the epileptic fit. According to this writer, of twenty-four cases of epilepsy, four were completely cured, two only had slight attacks afterwards, six had fits only at long intervals, ten were rather bilious, and four remained as they were. Sander, of Berlin (*Central:* 1868), also was in favor of large doses, five to eight grammes daily.

REMARKS ON THE SPECIAL REPORT OF THE COMMITTEE ON SANITARY SCIENCE.

Before the Ohio State Medical Society, 1871.

By R. R. M'ILVAINE, M. D., Formerly of Cincinnati.

[Reported by J. W. HADLOCK, M. D]

MR. PRESIDENT: I wish to inquire of our colleague if I understood him, in his able and elaborate paper, that there was a deterioration of the American people, and of the feminine portion in particular? [The Doctor was proceeding to discuss the question just raised by Dr. Black in his paper, when he was called on by many voices from various parts of the house, to take the platform, that all might hear more distinctly what he had to say. In taking the stand, he remarked that as time was precious, his remarks would be characterized with great brevity.] In the first place, the gratuitous assertion that the beauty of the American women is short-lived, and that before they have scarcely attained their majority, like the early cloud or morning dew, passes away, is a proposition incapable of demonstration.

I have had, Mr. President, the opportunity of seeing women in various places and under varied circumstances. I have not seen them at the receptions of that scamp Napoleon, nor those of Victoria, though I have met with persons who attended both. I am too much of a democrat to seek admission to the residences of despots. Now, let us begin by illustration; and we will give the late Mrs. Madison as a sample of the olden-time women. At her advanced age had she many peers? and we leave the history of her time to answer whether she had any superiors. We give her, then, as the type of a class; and we are happy to say that the class of which she was the representative, is not extinct, but will assert, without fear of successful contradiction, that there are among the women of Ohio to-day representatives of every decade from that of womanhood to the octogenarian, that will compare in point of proportion, which is the foundation of beauty, with the same number of women in this or any other country.

Now, Mr. President, as to the proofs that we are not deteriorating. In 1850, if I remember rightly, in every 2.178 of the entire population of the United States, there was one over 90 years of age, and in every 25,000, in round numbers, there was one over 100 years of age. Mr. President, it is not I who speak, it is history. It is the bible of politics and progress, the census of the United States for 1850, that I credit with these facts.

But further, Mr. President, the State of New York, in 1860, had a white population of 3.831,500; of this number there were 1,646 persons over 90 years of age, namely; 704 men, and 942 women; thus in every 2,327 there was one over 90. and in every 41.647 there was one over 100 years; in both cases women being in the majority.

Mr. President. we will next call your attention to the State of Ohio. In 1860, with a white population of 2,302,808, there were over 90 years of age 760; of this number were 366 men, and 394 women, and, therefore, there was in every 3,030 one over 90 years of age, and in every 33,864 one over 100 years of age. In this case, as in that of New York, aged women are in the majority.

Again, Mr. President, we will direct your attention to old Virginia. In 1860. with a white population of 1,047.299, there were 245 men and 296 women over 90 years of age (total, 541), which gives one over 90 in every 1,935. and in every 15,178 there was one over 100 in her entire white population.

And further, Mr. President, we shall cite a more northern latitude. In 1860 the white population of the State of Vermont was 314,369. In this small population there is evidence of vitality; there were over 90 years of age 14[illegible] men, and 180 women, and here, as in all the States named, women have the majority. In every 961 there was one over 90, and over 100. 13. being one in every 24,182 of her entire population.

Here, Mr. President, we have given a tabulated view of each section, east, west, north, and south, and we think it proves conclusively that we are not deterioraing.

Now, Mr. President, the entire white population in 1860, of the United States, was 26.690,206. Of this number. one in every 2.775 and a fraction. was over 90 years of age. Of this population there were 902 over 100 years of age, making one in every 29.578 and a fraction. These figures, Mr. President, speak for themselves, and we pass to inquire whether man in the aggregate has been deteriorating. It was intimated that in the hotter climates, as in India, that the population have to be recruited from more temperate regions. That the capacity of the white man—who is the emigrating man—for self-sustaining and reproducing in all regions, is a question I think history has settled. Emigration is not peculiar to our day, nor are discoveries. Pharo Necho. 616 years before our era, sent out an expedition on a voyage of discovery, which was successful in its mission. Bartholomew Diaz, in 1485 of the Christian era, discovered the Cape of Good Hope, which

Pharo Necho's men had discovered 2,101 years before. Barnatz, a Holland navigator, in 1596, discovered the Island of Spitzbergen, the most northerly land on the globe, so far as we know, in the Arctic regions, in latitude 80 deg. 48 min. But this is not all; the descendants of these same Hollanders founded a colony at the Cape of Good Hope in 1650, which, so far as know, remains to the present time. This is in latitude 34 deg. 30 min. south.

Now, Mr. President, another subject has been touched upon, and authorities have been cited. You are aware, sir, that authority is not always truth, but truth is always authority. The agitation of this subject is not of yesterday, it carries us to the past. I mean, sir, this subject, which has been so severely censured in his paper by our colleague, namely, the marriage of relatives. This is a subject that the Popes claimed at an early day to regulate by their authority. Thus Gregory the First, A. D. 598, pronounced marriages unlawful as far as the seventh degree of collateral consanguinity, computed from the common stock. Pope Innocent the Third, in 1198, in the plentitude of his power, claimed that he had a right to dispense with the law; hence, the Lateran council, in 1215, passed a remedy for those disabilities, and permitted marriages after the fourth degree, or what we call third cousins. It may be assumed that these things were done by the Popes to be as unlike Judaism as possible. From 325 of the Christian era, on the 19th of June, when the first Nicene council met, from that time it was the well-defined policy of those unsanctified wretches calling themselves Christians to persecute the Jews, century by century, till 1790, when a new era dawned. The Jew, under the benign influence of the French revolution, found himself recognized as a man.

Now, Mr. President, we are both face to face with facts against fancy, and demonstrations in opposition to assertion. That science should have its romance as well as literature, is not to be thought strange. For years we have been told, by those who profess to guide us, that the source of all our disasters, social and physical, was the intermarriage of relations. We have stated that the Jew found himself a man since 1790. To-day they are socially, morally, intellectually, politically, and pecuniarily, stronger than they have been at any period since the year 70, when, on the 10th of July, the Roman General destroyed their temple and blotted them out as a nation. Now let us inquire into their origin, and this demands of us to go east to Mesopotamia. There, 1998 years before our era, the father of the Jewish nation, Abraham, was born. In due time he married his half-sister. The issue of this marriage was a son, but on this son there was no outer and visible sign of imperfect organization. In due time this son, Isaac, married his first cousin, Rebecca, and from this union sprang two sons, Jacob and Esau, the former in due time marrying his two cousins. He, Jacob, the "New England Yankee of the Bible," became a trader, and his ability to acquire property is historical, and the standing type of his race to the this day.

But we will not fatigue you with their history—all can read it who choose. We pass now to the unduplicated man of history, Moses, who was born 1571 years before our era. Was his mother a Greek, and his father from the banks of the Tigris? No! His father, Amram, married his own aunt, his father's sister. Was Moses deaf? or was he idiotic? or was his brother Aaron a sufferer from mental incompetency? or have the descendants of the Jews to our day been distinguished by those diseases which are said to be the results of intermarriages? This we emphatically deny, and with all these facts before us, with nearly 2,000 years of oppression from a dominant religion, by their adherence to the great fundamental principle of the Mosaic faith, they have triumphed over all disabilities; hence we may conclude, in the language of one of their own prophets, "That Judah yet ruleth with God."

The doctor made the above remarks impromptu, and had to draw on his memory for the dates given, and he stated that if any mistakes occurred in data he stood ready to be corrected.

Book Notices.

AN INTRODUCTION TO PATHOLOGY AND MORBID ANATOMY. BY T. Henry Green, M. D. London, Member of the Royal College of Physicians, etc. Illustrated with numerous engravings on wood. 8vo. pp. 254, 1871. Philadelphia: H. C. Lea. Cincinnati: R. Clarke & Co.

The increasing importance which the study of pathology and morbid anatomy has recently assumed in this country, has induced the author to endeavor to supply an admitted want in our medical literature, by publishing this small work on the subject. It is strictly an elementary work, its object being to give a brief account of the more important morbid processes which take place in the human body.

We find the various chapters devoted to the treatment of the *Cell: Nutrition Arrested; Nutrition Impaired; Fatty degeneration; Mucoid and Colloid Degeneration; Amyloid Degeneration; Calcareous Degeneration; New Formations; The Fitbriolata; The Sarcomata; The Gummata; The Enchondromata; The Osteomata; Tubercle; Carcinomata, etc. etc.*

Physicians and students will find the work containing the latest information in pathology. No better work can be consulted on the subjects of which it treats.

Editorial.

CINCINNATI COLLEGE OF MEDICINE AND SURGERY.—There is prospect of a large attendance of students upon the spring term of this school. At the time of writing an unusually large number have matriculated. This is the only school in Cincinnati that confers degrees at the close of its spring term. It has now a strong and harmonious faculty; in fact, the best it ever had, and one which will compare favorably with any in the country.

A NEW COLLEGE ENTERPRISE.—We understand that it is in contemplation by a number of gentlemen in and out of the profession, some preliminary steps having already been taken towards it, to merge all the medical colleges of this city into one, and to make of the combination a *grand medical school*. It is proposed to locate it in the Cincinnati Hospital, occupying the front part of the building. There would be an abundance of room, for the house is twice as large as is necessary for the sick.

It is proposed to continue the instruction throughout eight months of the year, dividing the time into two sessions, but without any interval between them. Graduation, of course, would occur only at the close of the whole term. There would be about twenty-five chairs made, but only about three or four lectures would occur each day. Clinical teaching and didactic would go hand in hand, the former made continually to illustrate the latter.

The twenty-five gentlemen, who would compose the faculty, it is suggested to select from the *best material* of the faculties of the three existing schools, and from members of the profession not engaged in teaching. Probably the names of the majority are already set down on the slate. We have been informed of quite a number. As the Miamis own their building, in order that their *best material* might not be deterred from engaging in the enterprise, it is proposed to purchase their building for museum and laboratory purposes.

We understand that the Board of Trustees of the Cincinnati Hospital have appointed a committee to confer with the Trustees of the contemplated McMicken University in regard to the subject. Our readers must not expect, however, that the plans will be perfected at once, and the college established right away. A great deal of work would first have to be done, which would necessarily consume much time.

We are favorably impressed with the enterprise ourself. We believe it would conduce to the interests of medical education. Many improvements could be brought about which are now impossible. The lengthening of the course of instruction would be an important item. Students would not be daily "crammed" with lectures as they are now. They would only be given from day to day what they could easily digest. At the same time, new and important branches could be introduced into the regular curriculum of studies which are entirely omitted in many schools. and but imperfectly taught in a few. Microscopy, legal medicine. insanity, analytical chemistry, etc., etc., could receive the attention which the progress of science requires. It is becoming very common now for the formation of private classes to receive instruction in special branches, at an extra expense, that cannot very well be taught in the regular curriculum of the college, but where this is done it is at the neglect of the main studies.

Such an enterprise, if carried out, would do more towards making Cincinnati "a great medical centre" than the establishment of a dozen private institutions. No medical school in the West could compete with it, for it would have advantages which no private school could have. It would, more than any thing else, break up the habit of Western students going East to graduate; for such a college would immediately take rank second to none in this country.

RECOVERY WITHOUT SUPPURATION OF WOUND OF KNEE-JOINT, UNDER ANTISEPTIC TREATMEET.—We have not space to detail at length the report of the treatment of a case of wound of the knee-joint, by carbolic acid, as published in the *Lancet*, although the results were remarkable. It confirms the assertion of Prof. Lister, made some time ago, that "the freedom with which joints may be opened in an antiseptic atmosphere, followed up with antiseptic dressing, is among the most striking and valuable circumstances of this treatment."

In the case to which we allude, the knee-joint had been opened by a sharp instrument, so as to easily admit the forefinger, previously carbolized, far enough to feel the articular surface of the patella. An injection was thrown into the joint of one part of acid to nineteen of water.—the nozzle of the syringe being introduced so as to plug the aperture in the joint completely. The synovial bag was fully distended, and the solution was left to remain for a minute or so. Before the syringe was used, the skin wound was closed by a continuous suture of carbolized gut, with the exception of a portion sufficient for the nozzle to enter. The knee was then enveloped in about sixteen layers of carbolized muslin, extending some inches above and below the wound.

On the following day the lad was free from pain, even when the knee was slightly pressed. On removing the dressing under carbolic spray (one part of acid to ninty-nine of water), the joint was found very slightly puffy, but there was no fluctuation. No untoward symptoms occurred during the whole course of treatment, and when the patient was dismissed he had perfect motion in the knee.

ARTIFICIALLY INDUCED EPILEPSY IN GUINEA PIGS.—In the course of some recent experiments on the establishment of artificial epilepsy in guinea pigs, we learn from the *Lancet* of Feb. 10, that Dr. C. Westphal has added some new and interesting facts. He found that if one or two slight blows on the side of the head are given to a guinea pig, they are sufficient to bring on an epileptiform attack, after which the animal again recovers its liveliness, or it remains heavy for some time, and then exhibits a kind of rotatory movement, like those shown by Schiff to occur in rabbits after lesion of the crus cerebri. If the blow be too violent the animal dies with or without convulsions, but always with arrested respiration, the heart continuing to beat for some minutes, and life may be preserved, though usually only for a time, by artificial respiration. If the animal survives the blows, a similar epileptigenic zone is created as in the guinea pigs treated on M. Brown-Sequard's method by lesion of the medulla oblongata at certain points, or section of the sciatic; and, as in these last cases, the zone is near the angle of the lower jaw. Before the zone is well established, and four weeks are usually required for this purpose, the animals betray the presence of some irritation at this part by frequently scratching it. After it is established, slight pinching will induce tonic and clonic spasms, though the sensibility of the skin is here diminished. The rapidity with which the zone can be established may be increased by striking the animal's head on successive days, and the excitability of the zone endures for a period varying from six weeks to six months. The condition is hereditary. M. Westphal set himself to ascertain the nature of the changes induced by the blow or blows. That the condition is not produced by any alteration in the integuments is shown by the circumstance that the fits occur when the exposed skull is struck. Careful examination of the brain also furnished no clue to the mystery. But on examining the medulla oblongata and spinalis cervicalis, and even sometimes dorsalis, he found small hemorrhages both in the white and grey matter to be of constant occurrence, and there was usually also hemorrhage into the sac of the duraspinalis. These small hemorrhages appear to induce the primary attack of epileptiform convulsions, and the changes occurring around them to lead to the formation of the epileptiform zone; but *how* or *why* is not yet capable of explanation.

A DOCTOR IN LUCK.—Now and then we hear of a Doctor "in luck." Prof. Esmarch, of Kiel, is shortly to marry the Princess Henrietta, of Schleswig Holstein. We have this on the authority of the *Lancet*.

STATISTICS OF THE RACE.—The earth is inhabited by about 1.380,000,000 of inhabitants, namely: 380,000,000 of the Caucasion race, 580,000,000 of the Mongolian, 200,000,000 of the Ethiopian, 220,000,000 of the Malay races, and 1,000,000 of the American Indian. All these respectively speak 3,064 languages, and possess 1,000 different religions. The amount of deaths per annum is 33,333,333, or 91,954 per day, 3 730 per hour 60 per minute, or one per second. This loss is compensated by an equal number of births. The average duration of life throughout the globe is thirty-three years. One-fourth of its population dies before the seventh year, and one-half before the seventeenth. Out of 10,000 persons only one reaches his hundredth year; only one in 500 his eightieth; and only one in 100 his sixty-fifth. Married people live longer than unmarried ones, and a tall man is likely to live longer than a short one. Until the fiftieth year, women have a better chance of life than men; but beyond that period the chances are equal. Sixty-five persons out of 1,000 marry. The months of June and December are those in which marriages are most frequent. Children born in spring are generally stronger than those born in other seasons. Births and deaths chiefly occur at night. The number of men able to bear arms is but one-eighth of the population.—*N Y. Observer Year-Book.*

IMPORTANT PATHOLOGICAL DISCOVERY.—We received too late last month the letter from Vienna of Dr. J. Trush, to draw attention editorially to the most important discovery that it describes by Dr. Losdorfer; namely, that by microscopical examination with a high power and fine definition. such as Hartnack's No. 10 objective, syphilitic blood is found to contain in from two to four days after being drawn from the body minute shining bodies of irregular shape, some in a state of quietude, others performing a kind of swinging motion, etc. etc. (See letter in Feb. No. of NEWS.) The NEWS has the honor of being the first journal on this side of the Atlantic to publish the discovery.

Dr Trush states that Profs. Stricker and Hebra prepared specimens of syphilitic and nonsyphililitic blood on glass slides, and having marked them, sent them to Dr. Losdorfer. In every instance Dr. L. was able to distinguish the syphilitic from the nonsyphilitic blood. This will rank among the greatest achievements of microscopy.

ROOMS OF CINCINNATI COLLEGE OF PHARMACY.—Cincinnati O. February 21, 1872. Sir:—The following Standard Formula for Jackson's Cough Syrup has been adopted by our College, and is now published for the information of those concerned.

℞	Fluid Extract Ipecac,........................	ʒss
	Fluid Extract Senegæ (℥i Rad. Senegæ to f℥i).	ʒiii
	Fluid Extract Rhei,........	ʒiv
	Syr. Simplex..................................	℥xxxi
	Morphia Murias,...	grs. viii
	Ol. Sassafras................	gttæ xxxii
	M. ft. Mistura.	

By order of the College, JAMES M. AYERS, Secretary.

THE AMERICAN NATURALIST.—This is the only magazine in the country devoted entirely to Natural History. It is published monthly, and is illustrated with wood cuts and plates. Each number contains 64 large 8vo. pages of reading matter.

The leading men of science are among its contributors. and, in the language of the *Quarterly Journal* of *science* (London). "it is every way worthy of the great nation which it is intended to interest and instruct." A new feature has recently been added to it—that of a department devoted to microscopy, which will make it still more valuable to scientists and physicians especially. We have made a few excerpta from it in this number of the NEWS. Price $4 a year. Address American Naturalist, Salem Mass.

LADIES' REPOSITORY.—Of the standard literary journals of the day none hold a higher position than the *Ladies' Repository*; in fact but few equal it. Its articles are from the pens of writers of culture and taste and embrace the widest range of subjects. Though primarily intended for the ladies, it is not devoted to fashions and to the dissemination of trashy novelettes which belittle the mind rather than develope it. It is adapted to the moral and literary wants of all; the gentleman of cultivated mind will find himself at home in its pages.

Each number contains eighty super-royal octavo pages and two original steel engravings. executed in the highest style of art.

Terms $3.50 a year. Published by Hitchcock & Walden, Cincinnati.

THE
CINCINNATI MEDICAL NEWS.

Vol. I. CINCINNATI, APRIL, 1872. No. 4.

PAIN: A SYMPTOM OF PULMONARY TUBERCOLOSIS.

By A. D. Dutcher, M. D., Cleveland, Ohio.

I.—Pain a Common Symptom of Disease.

There are few symptoms more generally present in disease than pain. It is this which renders sickness so trying and hard to bear. And it is this which has led many good people to regard disease as a visitation sent from God to punish mankind for their sins. This opinion is based upon the idea that there is a connection between punishment and suffering, as cause and effect; but however associated these two ideas may be in the mind, we are not willing to admit that there is any logical connection between them. Physiologically considered, pain is designed to give us timely warning of whatever deviations from a state of health may occur in any part of the system.

If there were no such thing as pain, many diseases would take place without the individual having any knowledge of them. With the exception of a certain class of dislocations, the mechanical inconvenience of which gives timely notice of their occurrence, we should be ignorant of almost all other accidents or diseases we are subject to, only for the pain that attends them. Hence pain, instead of being a judicial punishment, physiologically considered, is a great blessing, inasmuch as it prompts us to take efficient measures for the recovery of our health as soon as we have been warned of its invasion.

Pain, therefore, as a symptom of disease, is of great use in assisting the physician in finding out the seat and nature of many internal disorders that afflict the body, but which, from their nature, position, and obscurity, could not positively be determined without it. Take, as an example, some of the obscure inflammatory disorders of the chest, bowels, and brain, the management of which, though having certain points in common, differ in each according to the difference of their structure and functions. To enable us to determine the best course to be pursued in treating any given case, we must be able to determine before hand what is the precise malady we have to contend with.

In very many diseases the constitutional symptoms are so nearly alike, that no very positive knowledge can be derived from that source; and, although there may be other symptoms of a particular kind depending upon the form, position, and office of the different organs, which, when discovered, leave no doubt upon the mind as to the nature of the disease, yet they are too obscure in their primary stage, and sometimes too slowly manifested to answer the purpose of giving timely warning for a correct and satisfactory diagnosis. Pain, therefore, presents itself as one among the very first symptoms of disease in the suffering organization, and directs our attention at once to the particular part where disease is working its fearful mutations.

But when we contemplate pain as a symptom of certain local lesions, observation has taught us that it has to be taken with many qualifications. Thus we know that pain may arise in a particular part, either from excessive impression on the nerves of sensation, or from excessive sensibility of these nerves. When pain arises from internal disease, it is mostly from the latter cause; but it is not uncommon to find them combined, as when a tumor presses upon a part morbidly sensitive. The most frequent causes of pain, however, are inflammations, certain vascular excitements, which are nearly allied to it, and primary exaltation in the nervous functions.

As inflammation is only one of the causes of pain, so the pain present in inflammation is not always a sure index of its extent or situation. Frequent and extensive inflammation of the bowels, liver, and lungs have been known to occur, producing but very little if any pain. It also frequently happens that pain is not confined to the location of the part affected, but at a distance from it. We have examples of this in some forms of hip-joint disease, where the chief pain complained of is in the knee; or in nephritis, where the pain is in the neck of the bladder.

II.—PAIN AS IT MANIFESTS ITSELF IN PHTHISIS AND OTHER CHEST DISEASES.

To fully understand and rightly interpret pain as a symptom of phthisis, it will be useful to contemplate it as it manifests itself in other forms of chest diseases. Practical observation has confirmed the fact that the pain of pneumonia and bronchitis is dull and diffused, while that of pleuritis and pericarditis is sharp and lancinating. The reason for this may be found in the fact that the pneumogastric nerve, which supplies the bronchi and lungs, is not so sensitive as the spinal intercostal, that supply the pleura and pericardium. And again, for this same reason, there is commonly more acute pain when the costal pleura is inflamed, than when the pulmonary pleura is the principal seat of such serious disorder.

A further consideration of these different kinds of pain will establish the idea that they do not originate from the same source. The dull, heavy, or aching pain of pneumonia is constant, and although it may be increased by full inspiration, yet, then it gives the feeling of soreness under the sternum, rather than a sharp pain. In pleurisy, on the other hand, the pain is sharp, extreme, and sometimes intolerable. Even in ordinary breathing it causes that sharp stitch of the side, that sudden catching of the breath, which is regarded as so characteristic of pleuritis.

When the attack of pleuritis is very acute, the patient is often compelled to hold his side to lessen its intensity, by restraining the motions of the chest, and, thus placed in opposition to the sensation which prompts the act of respiration, this sharp pain may cause such voluntary restraint of these acts as to bring the patient to the very verge of suffocation. It is under such circumstances that the breathing becomes partial, and the sufferer, whom pain compels to breath only with the diaphragm, or with one side, will perform this supplementary respiration so well that he is completely free from pain, although the inflammation may be still in progress, and matter accumulating with great rapidity in the cavity of the chest.

I recently met with a very interesting example of this kind. It was that of a lad, aged fifteen. From exposure to wet and cold, just after a severe attack of measles, he had what his physician called the lung fever. Not recovering from this malady as fast as his parents thought he should, I was invited to see him. He had now been ill for four weeks. His pulse was 120 per minute in the sitting posture, and respiration forty; tongue moist and clean; skin warm and very moist; urine scanty and highly colored; appetite good, and bowels regular; countenance pinched, with a bright hectic flush upon the cheeks; chills and fever every evening; cough and mucous expectoration; complains of no pain in the chest, and, as far as I can learn, has never had any during his illness; mind cheerful, and he rests well at night when under the influence of morphine.

On examining the chest the following physical signs were elicited: Inspection showed an inequality in the size of the two sides, the right being larger than the left, and the intercostal spaces in its lateral and inferior portion more distended than natural, and when pressed gave a distinct sense of fluctuation; the respiratory movements were also unequal; in the right side they were suspended, in the left augmented. On the right side percussion yielded a dull sound from its base to the summit, while on the left it was somewhat clearer than in health. Auscultation elicited no respiratory sounds in the right, while in the left they were increased. Loud mucous rhonchi was heard along the track of the larger bronchi. The heart was laboring prodigiously, and its position appeared to be somewhat altered; the apex striking against the fourth intercostal space, and the mitral sound being heard more clearly at the second.

From the above symptoms and physical signs the diagnosis was pronounced: antecedent pleuritis and its sequence—*empyema.*

He was ordered opiates, tonics, and a nutritious diet. At my second visit, three days afterward, paracentesis was proposed, but this was declined by the patient and his parents. Fortunately for the patient, about ten days from my second visit, the abscess pointed in the fifth intercostal space, and was punctured just below the nipple, and discharged a large quantity of semi-purulent matter. From this time he gradually improved in health, and ultimately recovered, with his right lung very seriously damaged by the pleuritic disease.

The attending physician, I learned, had been very careless in his examination of the patient's disorder, never once percussing or auscultating the chest to ascertain its true condition. Indeed he told me, with an air of superior gravity, that he had no faith in the physical signs; depended altogether on the general symptoms in making out his diagnosis of chest difficulties, and, as the patient had never complained of pain in the side, did not suspect the existence of pleuritis.

Cases like this are pregnant with instruction and warning. They teach the importance of a careful physical exploration of the chest, in all cases where there are the slightest symptoms of lung or cardiac trouble. It is true, the general symptoms may point out the chest as the seat of the disease, but its precise location and its nature can only be determined by the physical signs. In this case one of the most marked symptoms of pleuritis was absent, *pain;* yet if the physical signs had been interrogated at the commencement, they would have given a direct clue to the nature of the malady, and proper treatment could have been instituted, and much subsequent suffering avoided.

But let us return from this digression. Pain in the chest, considered as a symptom of phthisis, is not of much value in a diagnostic point of view. Some writers maintain that it is almost always present, while others declare that the great majority of patients are not materially annoyed by it. We can very readily believe the latter, when we reflect that, with the exception of the brain and spleen, the lungs are the most insensible organs in the body. And we have just seen how a large collection of matter may form in the chest, and press upon them in such a manner as to prevent them from performing their proper functions, and yet the individual complain of no pain, or of not sufficient to lead us to suspect such extensive injury. I have occasionally met with extensive tubercular disorganization of the lungs, and yet the patient has complained of little or no pain in the chest. Drs. Bennett and Morton have both recorded cases of this kind. Dr. Morton mentions the case of a woman who died of a hepatic affection, and on post mortem he found nearly the whole of the superior lobe of both lungs destroyed by tubercular disease, and yet she had never complained of pain or even uneasiness in the chest. Patients thus affected often express themselves as greatly astonished, when you explain to them the nature of their disorder. "It cannot be possible," said a young man to me one day, "that my lungs are in the condition which you have described. I know I am a little short of breath when I attempt to walk fast, and cough some in the morning when I rise, but my voice is good. I have no pain in my chest, and if it were not for this sense of weakness I feel when I attempt to exercise, I am as well as I ever was." Poor fellow, he died in four months after this without scarcely having suffered a pain.

But such exemption from all pain in pulmonary tuberculosis is not common. Most individuals, sometimes during the progress of the disorder, will complain of more or less pain in the chest. Frequently it comes on at the commencement of the disease, and annoys him throughout its whole course. In other instances it may be deferred until the tubercular affection has made considerable progress, when it may suddenly attack the patient, and produce the most intense suffering. When it assumes this character, that is, when it is very acute, comes on suddenly, and is located low down in the side, and increased by full inspiration, it is generally indicative of intercurrent pleuritis; when just under the mammary region, it will commonly be found to depend either upon congestion or pneumonia. But when it depends alone upon tubercles in the superior part of the lungs, it will be located just under the clavicle, extending even to the shoulder or scapula. I have seen instances where it was confined exclusively to the shoulder. The character of the pain, when confined to the parts just named, is analogous to that complained of by individuals suffering under a mild form of rheumatism; it is never intense, like that of pleuritis. Indeed, the pain of phthisis is sometimes quite migratory in its character, wandering even to distant parts of the system, and rendering the patient very miserable by its cruel freaks.

The practical lesson to be deduced from the character of pain, as it is presented to our view in phthisis, is that when very mild, amounting to nothing but a disageeable uneasiness, it is a symptom of little importance; but, on the other hand, when it is fixed and very acute, it is a circumstance of great moment; it is usually an outstanding sign of intercurrent inflammation, which demands our most serious attention. These intercurrent inflammations are the most serious lesions that complicate this fatal malady. If it were not for these, pulmonary tuberculosis would be almost a painless disorder, and would more frequently result in recovery. And that physician will be the most successful in treating it who promptly meets and overcomes all those intercurrent disorders, which constitute so marked a feature of the disease in our climate. And medical science is not destitute of instrumentalities for the accomplishment of these ends, if they are carefully studied and faithfully applied.

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A CLINICAL LECTURE ON THE PATHOLOGY OF AMENORRHEA.

By A. J. MILES, M. D., Prof. in the Cincinnati College of Medicine and Surgery.

[Concluded from page 110 of the Mar. No]

Gentlemen, you will bear in mind that amenorrhea may result from abscence of the uterus or ovaries, from atresia of the uterus or vagina, from incomplete development and atrophy of the uterus and ovaries, as well as other abnormal conditions having a local origin within the generative organs.

The patient I now present before you has just recovered from amenorrhea, the result of atresia of the uterus.

Mrs. M., thirty years old, married, and the mother of one child two and a half years old. One year after the birth of this child she had a profuse uterine hemorrhage, that she supposed was the result of an abortion. Three months after the occurrence of the hemorrhage I was called to see her, and learned from her history that she had been suffering from the symptoms of acute metritis. I found her thin in flesh, weak, and but little appetite, with considerable pain in the lower part of her bowels, hips, and back, which was increased by her being much on her feet, with difficult and painful micturition. I suggested to her, in order to ascertain the exact nature of her trouble, that it was necessary to make a vaginal examination, which she declined, as she thought she had only *taken cold*, and would be well in a few days. I saw nothing more of the case until about nine months after this time, when I was sent for in great haste to see her, and on arriving was told by herself and husband that she expected to be confined, that she now had gone two or three months over the time of expected confinement. I placed my hand on the abdomen, which seemed distended, but the walls of which were thin and flaccid, and found in the region of the uterus a tumor not much larger than a man's double fist. I inquired why she thought she was pregnant at full term, and she replied, that it had been eleven or twelve months since she had menstruated; that she had some enlargement of her bowels; that her health was miserable, frequently vomited after eating; much of the time was confined to her bed; and now was suffering all the pains of child-birth.

I made a vaginal examination and found this tumor was due to enlargement of the uterus. I ordered morphia, to relieve the pain, and called next day, when, on examination, I found the neck of the uterus very much shortened, and the os impervious, as I failed, on forcible attempts, to introduce the uterine sound. From the history of the case, I believed there was retention of the menses from occlusion of the internal os, resulting from inflammation. Acting upon this view of the case, I procured a trochar and perforated the uterus through the occluded neck, which was followed, on the withdrawal of the instrument, by the escape of about a pint of dark grumous fluid, the retained menstrual secretion in a state of decomposition. After the patient had recovered from the effects of the operation, I introduced a gum-elastic bougie, and had it retained a greater portion of the time for five days, in order that the os tincæ might be kept from again closing.

A month after the operation she menstruated, having considerable pain the first day, but the discharge was not quite as much as when she was in good health. By a tonic course of treatment she is now, six weeks after the operation, enabled to appear before you, and has been kind enough to give an intelligent history of her case for the benefit of your instruction.

This case goes to show how necessary it is to know the exact pathological lesion, when it can be so easily ascertained, before treatment is instituted. If she had consented to examination and treatment at my first visit, the metritis might have been subdued and this whole trouble prevented. You might as well go to a dentist to have a tooth treated or extracted, and then affect to be so very modest that you would not let the dentist look in your mouth. This kind of false modesty led this patient to take homeopathic sugar and water for several months, until real danger threatened. Think of the vast amount of sugar and water wasted that was given to bring on menstruation, when there was permanent occlusion of the uterus!

Besides the causes of amenorrhea having their existence in the abnormal condition of the organs of generation, there may be other causes resulting from derangement of the general system,—such as abnormal states of the blood in plethora, chlorosis, cirrhosis, Bright's disease, and many other constitutional disorders, producing impoverished condition of the blood. And, also, abnormal states of the nervous system, resulting from atony in mental depression, in indolence and luxury, from want of fresh air and exercise, and from constitutional disease.

Amenorrhea may result from certain moral affections, as disappointment, anxiety, grief, fear, etc. These various conditions of the system act in such a way on the generative organs as to prevent the development of ovulation, and the sympathetic congestion necessary for the rupture of the uterine vessels, and the consequent effusion of the menstrual blood. From this view of the subject we do not consider amenorrhea a special disease, but nothing more than a symptom of very various pathological conditions. Therefore in the treatment of amenorrhea you cannot rely upon specific emmenagogue medication, but must seek to correct the particular morbid condition upon which this absent secretion depends.

Gentlemen, the case I now present before you is one of absence of the menses from causes existing in the general system, and is not the fault of the generative organs. This girl, seventeen years old, had some slight "show" of menstruation a year ago, which has now entirely disappeared, and at the same time she has lost her appetite and grown weak, and, as you see, thin, pale, and anemic, lacking that rotund development so indicative of woman-hood in one of her age. She runs a sewing-machine ten hours a day, and, like hundreds of others in this city, of her age, is taxed beyond her powers of endurance. This expended strength is necessarily required to complete the development of her system. As she has every month pain in her back, hips, and bowels, with a languid and depressed feeling, the indications would be that ovulation occurs, but is not accompanied by the menstrual flow in consequence of the anemic and depressed condition of the general system. In consequence of these symptoms occurring every four weeks, the mother comes importuning us to give the girl some emmenagogue to bring on her menses, with the popular idea that they can be established by specific medication, and that then her strength will return, and health and vigor will be restord. But she has mistaken the symptom of her disease for the cause. First supply the *fountain* and the *stream* will follow. Therefore, our duty in this case is to advise that she should discontinue work at the sewing-machine, take out-door exercise, and to have good nourishing diet with tonics, and we can give her the assurance that in due course of time all things will be added.

ON APHASIA.

By J. A. THACKER, M. D., Prof. of Psychology and Diseases of the Nervous System in the Cin. College of Med. and Surg.

From the LANCET of London, Sept. 1870. Concluded.

Now it is evident, if what I have stated be true, that speech is the result of what metaphysicians term the faculty of association—a faculty, if there be such a one, that no one knows anything about, more than that there exists in the human mind a potentiality of associating ideas together, so that one idea may bring up another, and this again another, producing an interminable train, unless something interferes to break the procession. And not only are ideas so associated that the occurrence of some particular one to the mind will call up another, but certain acts or muscular movements are oftentimes associated with certain ideas so that the former are always suggested by the latter, and in turn suggest them. Of the last-mentioned class of associations (actions with ideas) I could give very many examples, but one or two will suffice. A little reflection on the part of the reader will call to his mind many others. The roar of the wild beast will cause the traveler, resting by the wayside, to start to his feet in preparation for escape, even when he is not exposed to danger, from having been accustomed to flee at the sound; and rapid flight on the part of any one always suggests to our minds a threatening danger. The physician puts on his hat and seizes his cane, preliminary to setting forth to visit a patient, without employing any mental operation whatever; the idea is formed, and the associated act follows automatically.

Bernard very correctly states, in one of the sentences of his remarks which I have quoted, that, "in the education of the organs of speech there is consequently established between the auditive sensation and the vocal motion a veritable nervous circuit, which connects the two phenomena into a common functional object." To employ language more readily understood, an idea becomes associated with a certain sound proceeding from movements of the muscles of the tongue, larnyx, etc., by means of the organs of hearing, so that when the particular sound occurs the same idea is awakened, and, *vice versa*, the idea suggests the sound that has been heard to express it. The idea of danger not only tends to call into action the movements of escape, but rapid flight occasions thoughts of peril. So closely interwoven do words and ideas become by long-continued association that they seem to be inseparable, and lead to the error that there cannot be an idea without a word giving utterance to it, or formed in the mind expressing it. "A word is nothing more than the artificial mark of the muscular act of speech into which the idea is translated, and a name nothing more than a particular word appropriated to mark a certain idea, so that when heard or seen it may excite the same idea in our mind, or a similar idea to other minds." "But because its muscular acts," says Dr. Maudsley, "receive a special name— are called speech— they are not special in kind, and have not more a special faculty in the mind than any other definite co-ordinate movement has."

The little child possesses all the muscles necessary for emitting from the vocal organs a great variety of sounds, and organs of hearing for taking cognisance of them. As its cerebral hemispheres become developed, and the impressions received are organised into ideas, associations, first of the simplest character, begin to be formed, and by-and-by it learns from its educators to connect certain ideas with particular sounds, so that when the latter are heard the former come into the mind, and *vice versa.* First it associates the word "Mamma" with its mother, and when it is able to lisp it itself by induced efforts at imitation it has taken its first step in language. It will thus be perceived that "in the education of the organs of speech there is consequently established between the auditive sensation and the vocal motion a veritable nervous circuit, which connects the two phenomena in a common functional object."

Says Bernard, in the address before alluded to, "It has been said that silence is eloquent; ay, for those who cannot speak, and for those who, being initiated to all the emotions of the heart, feel that there then takes place something in us which words cannot express!"

Granted that the views which I have set forth are correct as to the mechanism of speech, what condition has been brought about in an individual suffering from aphasia? It seems to me that the most philosophical mode of accounting for the affection is to ascribe it to a destruction of the associations, which had been formed, of ideas and the various muscular movements which produced the sounds from the organs of speech representing them; in other words, the "ideo-motor intuition" no longer takes place when a thought enters the mind, and, therefore, there is no exciting current, as it were, conveyed from the sensorium commune through the motor nerves to the muscles of the larynx, tongue, etc. As I have said, an individual, when learning to speak, is taught to associate his ideas with particular sounds, and, possessing the mechanism in himself of forming the same sounds, an "ideo-motor intuition" or impulse results, which, when excited, enables him to make use of the words which he has connected with particular ideas. But certain changes having taken place in the structure of the brain tissue, not at a particular point, but generally throughout the nerve cells, the accustomed associations no longer occur, and the loss of speech or written language, or both, is the result—both alike being dependent upon ideo-motor intuitions from associating ideas and muscular movements, and follow upon the action of their own set of muscles, as is the way with intelligent signs and demonstrations of every kind. Every mode of giving external expression to what is passing in the mind is a language so far as it goes, and, when employed, results upon associating the idea and the particular action constituting the "ideo-motor intuition" of that language.

Many illustrations could be given of the obliteration, by cerebral changes, of the so-called faculty of association in other instances than we see in associating ideas with particular movements of the muscles called in action in speech. In old age, the power of associating ideas together, so that one may call up another, becomes very much weakened, and is a great hindrance in carrying on mental processes of any kind. In the young it is active, and contributes largely to the ready remembering of facts; but as the vesicular matter of the cerebrum becomes modified by time—as the mind, as suggested by Herbert Spencer, proceeds more and more from the indefinite to the definite, until it attains a definiteness inconsistent with its existence—it gradually fails and oftentimes disappears entirely. Again, the association which exists in the love of an individual of one sex for another of the opposite not unfrequently is obliterated either by traumatic injury or idiopathic disease; so also may the affection of parent for child be destroyed by the same causes, and even sometimes supplanted by hatred. True there are instinctive associations, but their character is not changed because they have not been acquired. When they have been acquired a potentiality existed, which is the foundation of nearly all of men's associations, and which constitutes a marked difference between them and the lower animals, in which nearly all are instinctive.

Dr. Maudsley suggests, among other explanations as the cause of aphasia, the loss of the *muscular sense* in the organs of speech; but as this sense has certainly no distinct existence like those of sight, taste, and smell, etc., the proposed explanation does not appear to me satisfactory. The "muscular sense" depends upon that of touch, and while it cannot exist without it, it is difficult to conceive of its being absent while the former is present. I do not know that it has ever been shown that anesthesia of the organs of speech is a constant phenomena. The muscular sense, too, if I rightly understand it, simply means muscular resistance, and how muscular resistance is involved in speech I do not fully comprehend. Surely in the case of amnesia of written language, which is often a feature in aphasia, there cannot be alleged a failure of the muscular sense.

Gall, as is well known, in 1809, first advanced the proposition that there is a faculty of language, and located it in the anterior lobes of the brain. In 1861, Prof. Paul Broca went further, and pointed out as its seat the third frontal convolution of the left hemisphere. In proof of his view he presented to the *Societe Anatomique*, of Paris, two specimens obtained by post-mortem from two aphasics, and afterwards during the year other corroborative evidence from autopsies. Bouilland and other distinguished Frenchmen gave their assent to this notion, and at different times it has been discussed, for and against, in the Societies of France, with much spirit, sometimes even approaching almost to violence. Further research, however, has now proved it beyond doubt to be incorrect; for, examination of the brain after death has shown the particular convolution intact in persons aphasic during life; and, again, not only it, but the whole anterior portion of the left hemisphere destroyed in those whose speech had not been affected. It seems to me that our present knowledge of the anatomy and physiology of the nervous system is sufficient to disprove Gall's theory, and, as a consequence, that of Broca, without the support of autopsies; for the reason, as Dr. Maudsley points out in *The Lancet*, that if there is a centre of language in the brain, all other portions of the encephalon concerned in the formation of ideas would have to be connected with it in order that their ideas might find expression in speech, which we know is not the fact. In fact, it would be necessary for it to be the centre of two sets of fibers, one bringing impressions of ideas from other parts of the cerebral hemispheres, and another connecting it with the organs of speech.

Of course, I would not attempt to explain the mechanism of the association of ideas with one another, and with particular muscular movements, or anything in regard to its essential nature. Mr. Mansel, in his very philosophical work upon the subject, proves that there is necessarily a limit to religious thought; and we may very properly consider that there is also a limit to physiological thought. It is a *property* which is as yet beyond our ken, and may always remain so. We are very well aware of the *fact* that in the physical world particular particles of matter, under favorable circumstances, cohere, but of the nature of the attraction of cohesion we are ignorant; also that, *under certain conditions*, a plant, with a nicety of discrimination truly wonderful, selects from the atmosphere about it and from the soil in which it is planted the elements favorable to its nutrition, rejecting all others; but how it does it—the subtleties of its nature which enables it—we know nothing. These are properties which we ought to be able to recognise, even if we do not understand their *modi operandi*, and *know that they are properties.*

A distinguished writer states, and it seems to me very correctly, that conclusions respecting aphasia have been drawn too entirely from pathological observations, without regard to the important bearing which language in its physiological and intellectual aspect has on the question to be resolved. If we ever expect to understand the lesions of the brain which bring about a loss of speech, we must first be in possession of a correct philosophy of speech, otherwise, even if we know that this or that injury will result in aphasia, the information will not be of much value. If an individual knows nothing about the philosophical principles involved in the movements of a steam-engine, his knowledge that a particular accident to the machinery has resulted in a stoppage of its working would be of little value, and do but little in qualifying him for its repair. The most important knowledge to be in possession of is not the fact that a certain lesion has produced a particular result, but what principles underlie the conditions which have been destroyed. "Had the subjective method been properly used, and the psychological relations of language duly considered," says one of the authors from whom I have quoted, "it may be questioned whether the theory that a part of the left frontal convolution was the seat of articulate language would ever have been promulgated so hastily, and, I may add, received so rashly. To my mind there has been nothing like it since Descartes located the soul in the pineal gland."

Dr. Bucknill says: "How any combination of cells can be attended by processes of thought [and in them we may include the phenomena of association] is to us inconceivable; but it is not more inconceivable than that similar combinations should result in the phenomena of life, or that a combination of atoms should result in the movements of the solar system." Go as far with solution as we may, there still will remain a problem unsolved, for the chain is, of necessity, infinite. When we have gotten so far in elucidation as to demonstrate that a particular phenomenon is essential to any manifestion, a property of it, as in the case of gravitation and matter, we have proceeded as far in our investigations as we can.

There are quite often other phenomena to be observed in aphasia besides amnesia of articulate and written language, but as they may be regarded as more or less incidental, I have confined myself to the treatment of the affection in what may be termed its *pure* form.

CASE OF FRACTURE OF FIBULA.

By D. D. BRAMBLE, M. D., Prof. of Surgery in the Cincinnati College of Medicine and Surgery.

Fractures of the lower fifth of the fibula are of quite frequent occurrence, on account of the slender form of the bone and its close connection with the astragalus, being the pivot of the foot, which receives and transmits to the fibula the various shocks to which it is continually exposed.

Being so frequently connected with other injuries about the ankle-joint, as dislocation, rupture of ligaments, etc., it is exceedingly liable to be followed by deformity and permanent lameness.

On the evening of the 11th of February, 1872, saw J. P., aged 32, book-keeper, with injury of right ankle. On examination found slight eversion of foot, with some depression about two inches above external malleolus, at which point there was great tenderness, it being the seat of a fracture; crepitus distinct.

Treatment consisted in placing the limb in easy and comfortable position and the application of cold water. On the following evening the ankle was greatly inflamed and swollen, patient suffering severe pain. Applied eight leeches, after which continued cold applications. On the fourth day dressed fracture with Dupuytren's splints. On the fourteenth day applied a starch bandage and allowed my patient to go about on crutches. In three weeks after receipt of injury he was attending to business. At the end of the fourth week all dressings were removed, at which time there was some swelling, but comparatively little stiffness of the joint, patient being able to walk with the aid of a cane.

This is one of the few cases of fracture of the lower end of fibula, which occur without involving a disturbance of the relative parts; hence, after controlling the vascular excitement by the local abstraction of blood and cold applications, there was no further trouble in the case. Patient was allowed to go about in three weeks, whereas if there had been much injury to adjacent parts, the limb would have had to have been properly supported, with foot turned in, for a very much longer time.

THE CASES OF MR. WATSON AND CHRISTIANA EDMUNDS MEDICO-PSYCHOLOGICALLY ANALYSED.

By Forbes Winslow, M. D., D. C. L., Oxon., England.

I wish, without indulging in an elaborate exordium, briefly to consider, in a medico-psychological point of view, the two remarkable cases of murder which have during the last fortnight absorbed, to so intense a degree, public and professional attention.

With regard to the Rev. Mr. Watson, a great mistake was committed in the line of defence adopted by his learned and accomplished advocate. The error into which he fell may have either arisen from the obscure character of the case with which he had to deal, or have been the result of the mistaken diagnosis of those who instructed him.

The attempt to defend Mr. Watson simply on the plea of "melancholia," unsupported by other evidences of insanity before or at the time of the murder, was, according to my judgment, practically to abandon the criminal to his fate. It may be argued that this was the only plea that could have been advanced in favour of the prisoner—that there was nothing in his past life, either in regard to his conversation or conduct, which could be rightly cited as evidence of the existence of mental derangement prior to the murder of his wife. Under these circumstances his defence could only rest upon a presumed state of mind which existed at the time of the murder. I do not believe that this was the right position to take up in defending the prisoner. Mere menalcholia has never before been advanced in a court of justice as a valid and scientific plea in favor of a person accused of a capital offence. It would be most dangerous to the best interests of soceity it such a defence were accepted as an excuse for great crimes. I am speaking of melancholia pure and simple, unassociated with other symptoms of mental disorder. It may be argued that in Mr. Watson's case the melancholia was combined with suicidal impulses, and this gave great significance to the case. No doubt it did (particularly as homicidal and suicidal mania are so often found in close alliance); but nevertheless the right and safe plea was not raised. This issue was an untenable one. The case of Mr. Watson was, to my mind, clear and unmistakable, and if the term "melancholia" had not been introduced into the argument, I believe the jury would have had no difficulty in acquitting him on the ground of insanity. Judging by Mr. Watson's antecedents, as detailed on the trial, but more particularly as deduced from facts that have come to the knowledge of the public since his condemnation, I am of opinion that the great mental distress and anxiety to which he was exposed in consequence of his loss of situation, income, and social position, associated with his deep domestic sorrow, which induced a state of profound despair, had seriously damaged his brain, and ultimately also affected his mind, and that, although in all probability ordinary observers did not notice in him any well-developed symptoms of insanity (and how often this is the case!) previously to the murder, the germs or elements of mental alienation were no doubt in existence, and the train of powder was laid, ready to be ignited directly the torch (an exciting cause) was applied.* I believe that in Mr. Watson's case the violent quarrel he had with his wife, the last no doubt of a series (and no revelation has yet been made as to the fearful struggle that then took place) acting upon an intensely overwrought, and probably *congested* brain, rendered, by the severe strain to which he had been exposed, acutely susceptible of morbid exaltation, developed a *sudden burst of maniacal frenzy* (not ordinary anger, as understood by words, "*ira furor brevis est*"), and that in a state of *paroxysmal madness* (utterly destroying his capacity to distinguish between right and wrong) which this induced, committed the murder. His apparently rational conduct subsequent to the crime does not invalidate this theory. The hypothesis of melancholia *alone* could not explain the case; for melancholia is rarely, if ever, found associated with homicidal impulses. There is a suicidal melancholia, but not a homicidal melancholia, except as associated with symptoms of acute mania and distinct delusive ideas. Great stress was laid by counsel upon the opinion expressed by some of the medical witnesses, that they had never known a case of homicidal insanity which had not been preceded by evident symptoms of disordered mind. This declaration told fearfully against the prisoner, and in a measure secured his conviction.

But is not medico-psychological literature replete with the history of cases in which impulsive insanity or "murderous madness" has *suddenly* developed itself when no symptoms of mental alienation were—although in all probability existing—previously *observed!* Similar phenomena are common in cases of suicide. Under the head of "transient and impulsive insanity," as described in the leading psychological text-books, instances of this kind are related. It was said that in Mr. Watson's case no delusion could be detected; and Mr. Justice Byles and Mr. Denman laid great stress on this fact. Psychological authorities affirm, and some judges admit (the late Lord Campbell, for example†), that delusive ideas are not always present when the mind is disordered. But I believe it will be found that Mr. Watson was under the influence of an *undetected* delusion. The Latin sentence which he penned, and which was found on his desk after the murder, may prove eventually to be the keynote or crucial test to the discovery of a delusive impression which existed in his mind at the time of the murder. But apart from this view of the subject, I maintain that, in many cases, it requires the close and careful observation of weeks before the delusive idea can be dragged forth from its hiding place and made patent to the psychological expert. Three or four examinations of a criminal in his cell, each visit lasting for about an hour, or even more, will not in every case enable the physician, however skilled he may be, to detect, in subtle cases of insanity, the presence of a delusion.

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* It is reported that at the time of the murder he was on the brink of starvation, and that he had only £75 in his possession, with no prospect of increasing his income.

† Bainbrigge v. Bainbrigge.

On this subject, Dr. Bucknill says: "In cases of concealed delusions, or of diseases affecting the propensities, no medical man ought to give an opinion on such shallow grounds [viz., two or three visits to the accused and conversing with him in his cell]. I am not ashamed to acknowledge that I have often observed patients daily for several weeks without being able to detect any delusions."*

I trust that long before the time arrives for the execution of this learned and aged clergyman, his mental condition will be subjected to a close and rigid analysis, and his deportment and conversation (when alone and apparently unobserved in his cell) will be closely watched, particularly at night; and then I believe his insanity will be recognized.

With regard to the case of Christiana Edmunds, I have no lengthened remarks to make. She was declared by the medical witnesses to have a "defective moral sense," to be "deficient in moral feeling," "not able to distinguish right from wrong." Beyond this rather questionable phraseology the psychological experts did not venture.

Without questioning the existence of what is understood by the term "moral insanity," I do not think, judging from the facts elicited at the trial, that Miss Edmunds suffered from this type of mental disease. She undoubtedly inherited to a remarkable degree an insane taint, but would it not be dangerous to the best interests of society, and very damaging to the interests of medical science, if the existence of an hereditary predisposition to insanity could *per se* exculpate the criminal from the legal consequences of his violation of the law? In all cases of suspected or alleged insanity allied to crime, the fact of the accused person having descended from an insane stock is valuable corroborative evidence as to his mental condition, and becomes of value when associated with other indications of disordered intellect. I think there were strange and mysterious circumstances connected with her relation to Dr. Beard which, had they been closely sifted, might have thrown considerable light on the state of her mind, and have led to the discovery of positive evidence of insanity.

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* On the Classification and Management of Criminal Lunatics, p. 36.

It might have been found that she had an insane passion for Dr. Beard, and that she was under a delusion that he had encouraged it. Why counsel shirked this part of this case is best known to themselves. No doubt they had good and valid reasons for so doing. Again, there is the assertion she made in the dock, that she was pregnant, may be viewed either as a falsehood to escape the extreme penalty of the law, or it may have been an unfounded delusion often observed among insane persons.

Dr. Lockhart Robertson thought the case of Christiana Edmunds occupied what may be termed in the psychological chart the "border-land between crime and insanity." There can be no doubt as to the existence of the neutral territory to which he refers. It is a kind of *tertium quid*, the precise latitude and longitude of which has not as yet been clearly defined by the Medico-Psychological Association or the Royal Geographical Society. This intermediate colony is peopled by a large number of *quasi* lunatics—half-witted, sombre, clever, sullen, melancholy persons, the type of thousands who are daily mixing in society, and whose condition might easily, upon a superficial examination, be confounded with actual insanity, and whose state of mind would certainly be considered "insane or unsound" should they be guilty of any overt act of sufficient importance to call for public and professional attention. Beattie refers to this class of persons, and poetically paints a typical case:—

"Silent when glad, affectionate though shy,
And now his look was most demurely sad,
And now he laughed aloud, and none knew why;
The neighbors stared and sighed, yet blessed the lad.
Some deemed him wondrous wise, and some believed him mad."*

Do we not meet in daily life, particularly among women, numerous instances of excitable, irritable, half-mad persons, easily stimulated to violent rage, or by the most trivial causes depressed to the lowest depths of despondency and despair? An inherited insane taint, a highly overwrought nervous organization, and an hysterical diathesis, are the usual concomitants of those who belong to this eccentric section of society. Dr. Lockhart Robertson, no doubt, is quite right in supposing that Christiana Edmunds formed one of these "peculiar people," and might have run well in harness with the celebrated murderess Constance Kent.

Dr. W. Wood thought the prisoner was insane because she laughed at the idea of being executed for the crime she had committed; but the details published since her trial as to the extreme mental anguish she exhibited when she was told that she was not *enciente*, and that there was no hope for her life on that plea, disprove altogether his hypothesis.

It was not to be expected that in two important cases like those referred to, the judge and bar would wave their traditional right to carp and cavil at the use of psychological terms, or decline to take exception to what they think proper to term the "wild, meaningless, and speculative theories of 'mad doctors.'" It is not difficult to combat successfully with these captious and querulous objections. I once heard the late Lord Campbell say to a distinguished physician, who was giving evidence in a case of insanity, and had been obliged to use the term "homicidal insanity"—"Homicidal insanity! I will not allow those words to be used in my presence." But this indignant judicial repudiation of accepted terms—the technical language of science—did not alter in the slightest degree the fact of the existence of a type of mental derangement which manifests itself by murderous propensities, and psychologists designate "homicidal insanity."

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* The Minstrel.

When Galileo was brought before the Inquisition and accused by the seven Cardinals of teaching the doctrines of Copernicus as to the earth's revolution round the sun, a proposition which was denounced by his judges as "an absurd theory, false in philosophy, heretical in religion, and contrary to the testimony of scripture," he was, after conviction, sent to a dungeon, and although he subsequently was forced to recant, and compelled to promise (on the condition of his being released from prison) that he would not teach the doctrine of the earth's motion either by speaking or writing, he was heard, as he left the judicial tribunal, to say triumphantly (but *sotto voce*) "*E pur si muove*"—verily it moves. In a similar spirit the psychological expert may, when called to account for using medical phrases unacceptable to judicial "ears polite," exclaim, "The diseases represented by these well-recognized terms have a real and actual existence, and cannot be sponged or stamped out of the nosological chart by the *dictum* of any judge, however high his rank, profound his learning, and exalted his legal position."

In reference to what one of the medical witnesses said to the judge, when asked to define the term "unsoundness of mind," which he (the witness) said was equivalent to the term "lunacy," I would remark that unsoundness of mind is not "lunacy" in the legal acceptation of the phrase. This term was first used in a statute passed in the reign of Henry VIII., relating to the punishment of treasonable offences; and is defined by the early law text-books to be strictly one who "*quadet lucidis intervallis*,"—a definition not psychologically exact.

The phrase "unsoundness of mind" was first used by the late Lord Eldon to designate a state of mind not exactly idiotic, and not lunatic with delusions, but a condition of intellect occupying a place between the two extremes, and unfitting the person for the government of himself and the management of his affairs. This definition of Lord Eldon's was accepted and acted upon by all the judges who were his contemporaries, or who succeeded him on the judicial bench—viz-, Lords Lyndhurst, Brougham, Kenyon, Ellenborough, etc. But definitions of insanity, in any of its types or forms, should be carefully avoided by the medical witness. I never knew a psychological expert give in a court of justice a satisfactory definition of insanity. Polonius was a true philosopher when, with epigrammatic brevity, he said to the Queen of Denmark, Hamlet's mother,—

> "Your noble son is mad.
> Mad call I it; for, to define true madness,
> What is't but to be nothing else than mad."

In an article which appeared in the *Saturday Review* of the 20th inst., entitled "Alleged Insanity of Criminals," the writer says that the evidence given by Dr. Lockhart Robertson in Mr. Watson's case was almost exactly what was said by myself on the trial of Townley for the murder of Miss Goodwin. This is not altogether accurate. The writer omits to mention that I declined to give an opinion as to the state of Townley's mind at the *time* of the murder, but confined myself to the expression of my opinion of the mental derangement which was alleged to have developed itself during his long incarceration in Derby Gaol.

It is well known that, after I had reported Townley to be insane, the Government, in consequence of the extreme public agitation which this opinion gave rise to, sent two Commissioners in Lunacy to Derby to see the prisoner, and after a lengthened interview with him, and examination of numerous witnesses on the spot, they reported to the Government that in their judgment Townley was of "unsound mind," thus confirming the opinion I had given at the trial. *—*Lancet.*

THE RED BLOOD-CORPUSCLES.

Mr. E. Ray Lankester presents, in the *Quarterly Journal of Microscopical Science*, an interesting contribution to our knowledge of the physical structure of the red blood-corpuscle and the action of gases and vapors upon it.

The red blood-corpuscle has no outer coat distinct from its contents, and having a pronounced inner limitation, none being visible under the highest powers of the microscope (what might be mistaken under low powers for such proving under high powers to be an illusion of refraction), and the corpuscles, torn or cut by drawnig a needle across the slide, suffering no escape of viscid material from their interior, but furnishing portions which by the collapse of their edges assume a rounded form; yet their surface must be differentiated into a film or pellicle having no definite inner boundary, and similar to the pellicle which forms on a cooling mass of jelly, since they become wrinkled when subjected to oblique presure, and recover their form and outline again with great elasticity and precision.

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* Since the above remarks were in print, the Home Secretary, on the advice of Mr. Justice Byles and the Lord Chief Justice, has commuted the capital sentence passed on the Rev. Mr. Watson, to one of penal servitude for life. I feel fully assured that Mr. Watson's insanity wil soon be admitted, and that he will be transferred from Pentonville Prison to Broadmoor Asylum

The stroma of which the viscid mass mainly consists appears homogeneous in the mammalia, but contains a nucleus in the other vertebrata. This nucleus, though undetected by Savory, seems to exist in perfectly fresh corpuscles, and has been detected in blood while circulating in the vessels of the frog. It is somewhat indistinct, though a temporary delimitation may be caused by certain physiological conditions of the animal, and after removal from the circulation it becomes sharply and permanently defined.

The usually described forms characteristic of certain classes of animals, are not believed to be the only normal forms. The blood of the frog seems to vary at different seasons of the year, and the ordinary biconcave discs of human blood may be more or less replaced, in fresh and perfectly healthy blood, by the "thorn-apple" and the "single" and "double watch-glass forms."

The macula discovered by Dr. Roberts, of Manchester, in the blood of all vertebrata are strangely ignored by most of the recent authorities, though published many years ago. They are fully verified by the author's researches. A part of the matter composing the corpuscle segregates to form spots, usually one in man but often three or four in the frog, which are ordinarily imperceptible, but which are deeply stained by nitrate of rosanilin, and form sharp little pullulations under the influence of tannin. Whether the development of those macula is *post-mortem* or not seems to be undetermined.

That the corpuscles are not in the condition simply of a moistened membrane is shown by the very curious observation that they will readily float out of the plasma into a drop of oil. When separated in this manner from the plasma they show a strong tendency to cohere and thus assume hexagonal forms, just as they sometimes do when a thin film of blood is dried upon a slide.

The appearance and disappearence of the granulation of the nucleus, and other effects demonstrated by Stricker to take place when blood, after contact with aqueous vapor, is exposed alternately to carbonic acid and atmospheric air, is proved to be due to the alternate presence and absence of the carbonic acid, and not in any part to the oxygen of the atmosphere, since the air may be replaced in the experiment by hydrogen or other gases.

The action of chloroform and many other re-agents upon the corpuscles is studied minutely, but without as yet throwing the desired light upon their effects when introduced into the living system.

The preservation of blood absolutely unchanged in appearance is essential to a successful study of its structure. Hitherto the inadequacy of most students' microscopes and the necessity for immediate and hasty inspection of blood has almost prevented its successful study. To these reasons it should be added that only the few students who make somewhat of a specialty of this branch of science can become sufficiently expert for its more difficult investigation; and the author's estimate of drying as a means of preserving blood, that it is of little or no use, meets with an important exception in the case of studies as to the class of animals to which a given specimen of blood belongs, and also in the determination of the existence of certain diseases. For all purposes, however, it is desirable to preserve the corpuscles in their natural state, and osmic acid has been successfully introduced for this purpose by Prof. Max Schultz. A film of blood on a glass cover is exposed for three minutes to the vapor arising from a bottle of two per cent. solution of osmic acid; after which it may be immediately mounted in a nearly saturated solution of acetate of potash. "Every corpuscle thus becomes 'set,' as it were, in its living form."—*The American Naturalist.*

ADDRESS ON CLINICAL MEDICINE.

Delivered before the Clinical Society, Jan. 26, 1872.

By Sir William Gull, Bart., M. D., F. R. S., of London, Eng.

I shall have to-night to throw myself very much upon the indulgence of the Society in any remarks I may have to make, because I have not had time to dress them in such words as I should desire in order to place them properly before you. Many circumtances, which I need not dwell upon, have prevented my better intention; but I should not be satisfied to take the chair and assume the honor which you have conferred upon me without some remarks. It is not becoming that I should do so either in respect of the honor you have bestowed upon me or the work in which we have to engage, since, as president of this Society, I am in some sense your spokesman to the world concerning the objects we have before us.

Our position is a somewhat peculiar one. We are partially antagonistic to the theologic and the scientific aspects of the world as generally presented to us. We differ in opinion in one sense, and, I think, in a very serious sense, from that section of theologians who regard the world as a decaying world—as a world that was once better than it now is; who believe there was a past, however limited, without disease or death; who regard the troubles and perils which now exist as the result of a condition which I shall not now discuss, and which evils we must bear as well as we can, with but little hope they will be better and with the fear that they may be worse. This is, I think, entirely opposed to the view which, as student of nature, we are obliged to entertain. Whoever will take the least pains to look over the facts of creation may see that this world has always been evolving into the higher and better—that it has always had a coming future of good, not having reached perfection, and not, in the present condition of things, very likely to reach it, but ever adavancing toward it. Thus, whilst the one set of thinkers regard the world as decaying, we look on it as improving—improving in all respects, in its physicial conditions as well as in its moral and intellectual conditions; and as a Society we meet here year by year and work together towards the end which this idea sets before us. We are, as it were, the optimists of nature. We believe—though we rarely see signs of it, and working more by faith than by sight—that this world has, amidst all its diseases and its failures, a law of perfection with its inexhaustible fruits in store for it; and when we see individual suffering, disease, deformity, or premature death, we regard them as the failure of a law which in our minds we faithfully recognise, though its operations are frustrated.

Again, believing as I do that this is the view which we all entertain, that to-morrow will be better than to-day, and the day after better than that—as in the days of convalesence, when the last are always the best,—still I think we are hindered by considerations, coming from the side of physical science, which we owe to it ourselves not to receive as final, and which would make us forego that hope which the student of the lower forms in nature is very apt to deny himself. Such a one is apt to think we have before us all the conditions that are possible in respect of intellect, and that science has got its proper *role* marked out for it which cannot be altered, and a line beyond which it cannot pass. The student of medicine, however, occupied with facts which cannot now be included in the scientific conceptions of the day, is perhaps better placed than his colleague in the lower physics for the expansion of his ideas, if only in this—that he must believe that the intellect will open for us a wider world beyond and incommensurable with that which we now consider the scientific, the limit of which at this moment is the limit of the ponderable and the measurable. If the early animal inhabitants of this planet could have met in conclave they might well have concluded that there was nothing conceivable beyond their own degree of mental organisation, and could anyone have foreshadowed to such dull intelligences the mental activy of man, he must have met with an obstinate and sceptical denial. The student of medicine can as little deny the subjective as he can the objective. If he resists the inroad of superstition, on the one hand, neither can he admit the limits of scepticism on the other. We are often taunted with being servile worshippers of nature, and yet we are so only in a limited way. We cannot believe that nature, as thus vaguely expressed, is in such sense perfect. Though we are admirers, we are not blind devotees. Nature, as expressed to us in living forms, shows the tendencies to perfection, though in many parts but imperfect. We are met here to-night in view of imperfection, and with that as an object for the operations of the intellect.

To turn more especially to the object of our work, this living organism of ours. There is no doubt that it is of the first importance to every practical man to obtain the largest and truest view of the object on which he is occupied. One of the greatest advances in clinical medicine, and which daily grows, is the more thorough physiological view of disease. Disease is not now regarded as some independent entity in the body, but as a perversion of those life conditions which when normal constitute the state of health. We no longer regard disease as a graft on an already healthy part. The time is gone by when text-books could teach, as I and probably many others here had to learn, that acute disease may be idiopathic in healthy subjects.

In one sense there is no such thing as disease. Abstracted from care and pain disease sinks at once into the ordinary course of physical phenomena, and would rank in a far different category of natural phenomena. It is well sometimes to look at our facts in such light, to accustom the mind to other conceptions, although I fear that if we maintained such a position we should hardly be welcome to the sick, and certainly the science of medicine or cure could not exist. Skin for skin, what will not a man give for his life? and every man has to consider, and well consider, his own personal existence and comfort, and that is a practical view of disease which we, as medical men, have to take. Still, as I say, it is well sometimes, for the due enlargement of the conceptions of the mind, to get views beyond that which is merely personal, and to consider that those conditions which we call disease belong to a still larger class of phenomena.

We have got, I am happy to say, a long way beyond definitions, or you might perhaps expect one of disease from me. I do not, however, think that there is any member of this Society, or of the Pathological Society, or of the Medico-Chirurgical Society, that would venture to give a definition of disease. Disease is not a status, not a definable condition, but that course of nature in a living thing which is not according to its health. It is, whatever else it may be, such a course of nature in the individual.

This view of disease takes in a beginning, a middle, and an end. It takes in a beginning. The beginning of anything carries us a long way. We have to consider conditions afar off in the past to come to a beginning; therefore it is important to remember that, in disease, we are dealing with physiological conditions in a course of nature which has had a distant beginning. Disease to the ignorant is some entity ; something that must be searched out and contemplated by itself, and, if need be, attacked and exorcised as an evil spirit. That idea has given us a word still existing in medicine, "seizure." A man, we say, has had a "seizure." But what is it he is seized by? The old theological notion was that an evil spirit entered the sick man ; the error is gone, but its mark remains, and still conveys some part of the popular notion. Seizures, however, there are none, though we still use the word to express the beginnings of disease, and although to the ignorant it still implies something *ab extra* that must be got out of the individual as soon as possible. To the charlatan, disease is a different conception. It is a set of symptoms which must be attacked at all points with drugs and means of cure. Every symptom has its remedy. Attack, say these ignorant pretenders, the symptoms, and let us found a system on it. To such, therefore, disease is only a set of symptoms upon which to traffic with drugs, in either great or small doses. To the student of a truer medicine the causes, and not the symptoms, are the objects. It is a history and not a definition.

I said just now that to our notions of disease as duly corrected, many things formerly called disease could not now be so considered. Yet such errors do obtain in the practice of our profession, and many states are still considered and treated as diseases which certainly are not diseases at all. Thus it may be fairly said there are some people who are made to ail, and, without having disease, are born to suffer. Under the present condition of things, they cannot maintain a comfortable equilibrium. They are always ailing. Medicine fails on such. Unstable health is their law, in spite of the contents of the Pharmacopœia. In practical medicine it is important to recognize this. It is so equally in reference to the conditions of age. And this at various periods of life. Of tissues, as of the whole man, it may be said there is a time to be born and a time to die, but for different individuals this cannot well be determined, and the diagnosis may be difficult. Yet I may appeals to my hearers if they cannot recall cases where they have prescribed all the farrago of so-called tonics, with as good a purpose as if they would thereby strive to prevent the setting of the sun. Thus, I repeat, there are states too hastily regarded as disease, which are to the individual his normal existence. Such are the peculiarities of some persons when measured by the cases of others. Such are the normal senile changes of the body. Such, too, are the abnormal senile changes produced by disease. For in many diseases there comes a time when the conditions undergo change, and we get a new order, not strictly dependent upon that which preceeded ; as, for instance, syphilis may cease to exhibit its proper effects, but may have produced such a general influence on the nutrition as to lead to early decay: syphilis ceases as syphilis, but leaves decay. Thus the problems with which we have to deal may change, even as we are occupied in their solution, and that which we have to deal with in the end may be entirely different from that with which we began. Iodide of potassium may cure a syphilis, but the cachexia of the organism caused by the syphilis and its remedies may never be cured, but may advance in spite of all specifics, being no more disease than the decay of advanced age is disease.

Then let us consider the extent of our work: all the disturbing influences and the various morbific agencies that act upon our organism. I sometimes think that if, instead of covering these walls with books hardly ever read, we were to emblazon them with a list of all the morbific agents and agencies which may disturb our health, from the itch insect to the typhoid poison, the gain would be great. I am old enough to know—I am not sure that there may not be others here who may remember also—that itch was once considered to be a consitutional disease! I know those who believe now that pityriasis versicolor may depend upon hepatic or uterine disorder! Our supposed knowledge of other diseases may, though unsuspected, be equally at fault.

To know in exact detail the lines of morbid action and seats of primary operation of morbific causes would be of incalculable worth to us. Upon what tissue, for instance, does the scarlet fever poison first operate? "Oh," it will be said, "upon the blood." But this may be very much doubted. It is more than doubtful if the blood be affected directly by the poison of this and other fevers. Many organs with which the blood has most to do show no change. Look at the voluntary muscles: they receive much blood, but do not primarily go wrong. Look at the choroid and other deep vascular tissues of the eye, which, however richly supplied with blood, do not get particularly involved in the early phenomena of scarlet fever. It may be much doubted if our notions about the blood are not very vague, and I must appeal to the members of this Society to help us to improve our knowledge, and where we are wrong to correct it. To help us, in respect to morbid poisons, to determine upon upon what tissues they first act, and what is the first step of their operation. Their entry and exit from the blood may be but indifferent events. Probably, and almost certainly, they do pass through persons indifferent to their operation. What we want to know in clinical medicine is, where, according to their quality, they act. We may know where pityriasis versicolor begins and limits its operations, but we do not know when and where the poison of scarlet fever first begins to rankle, or when or how the poison of small-pox first begins its fatal work.

There is much hope that comparative pathology will teach us something on this subject. We are learning that there are parts in us more and other than we individually want, and without which we should be no losers: the relicta of our ancestral relations. Other organisms may have needed parts which may be superfluous and even injurious to us. A perfected comparative anatomy and pathology may teach us more on this. Probably, coming, as it seems to have, through a long line of dissimilar ancestry, there may have been entailed upon us elements not especially needful or useful. This opens an inquiry whether, if there be such parts or organs, they may not be, from their very nature, more liable to disease, since those parts whose functions are least definite are apt to be the foci of pathology. In this every pathologist will bear me out in respect of malformations and malformed parts. Those are commonly the seats of disease. Instance the cancer of undescended testicle. The vitelline duct in the ovum of man, considering the size of the ovum, must have but a microscopic function. It may be the vitellus is but the relictum of the ovipara. But however this may be, I do not suppose its function in man is great either in respect of time or space; and mostly the vitello-intestinal duct is equally transient as we may suppose its individual importance to man to be. Still it sometimes persists and grows with the intestine, giving rise to a large and by no means unimportant diverticulum of the ileum, remaining, in fact, as a relictum Our museums contain frequent instances of this, but there happens to be in the museum at Guy's an instance of such a diverticulum in a more perfect state retaining its connection with the umbilicus. It is from the body of a young man aged thirty-six, who had enjoyed perfect health until his fatal attack due to this superfluity. Owing to cold, or some such circumstance, an irregular peristalsis of the intestines twisted them round this useless part and set up a fatal obstruction, so that to him was applicable, with a change of a word, the epitaph of Burton, the author of the "Anatomy of Melancholy," and I requested it might be thus recorded:—"Cui vitam et mortem dedit diverticulum." How much longer and happier perhaps would have been this man's life had his oviparous ancestry not entailed this vitellus and its duct upon him. Perhaps my illustration may admit of critical objections, but there still remains the suggestion, that an advanced comparative anatomy and pathology may show there are some organs in us which, as individuals, we might be much better off without. These sciences may tell us more of the vital history of different organs and tissues. Like the bees, we must go far afield in these regions for our honey, and gather from every source of knowledge, returning home to study the special life and function of every fibre and organ.—*The Lancet.*

CLINICAL LECTURE ON SKIN DISEASES.

At the College Clinic, Medical Department University of the Pacific.

By PROF. C. N. ELLINWOOD, January 23d, 1872.

LUPUS.

Gentlemen: Remembering our simple classification of the diseases of the skin, you recognize in this woman an organic disease, *i. e.*, a disease marked by a structural change. Inquiring into the history of the patient, and examining carefully the pathology and general appearances of these ulcerations now healed, we have no difficulty in determing this a strumous disease, of the variety known as lupus, belonging to one of the four classes of organic diseases of the skin defined by uniform causes.

In the outset of our course you will do well to familiarize yourselves with our classification of the skin diseases. Such familiarity will aid you in a methodical study of them, and will aid you, too, in making a precise diagnosis in this difficult department of medicine.

All the organic diseases of the skin defined by uniform causes we arrange under four heads, viz :

1. Parasitic affections.
2. Syphilitic affections.
3. Strumous affections.
4. Eruptive fevers.

A careful study of lupus has developed the fact that it is a local manifestation of a constitutional disease—a strumous diathesis, and no matter what variety of lupus you have, it is in every instance dependent upon the same constitutional cause, viz: scrofula. In the older works on Dermatology you will find descriptions of many forms of lupus, words being chosen for their names which are supposed to describe the peculiar character of the local disease, such as lupus serpiginosus, l. non-exedens, l. exedens, l. devorans, etc. These terms indicate the degree of destruction of the tissues merely, and are of no great clinical importance, as it frequently happens, and I may say, generally within my observation, as in this case before you, that you see these several varieties in the different ulcerations in the same case and at the same time. We had here on the cheek a perfect type of the lupus *serpiginosus* as described by Neligan, the cicatrix now marked by a seam in its centre like that of a burn, while the side of the nose was destroyed by the ulceration consuming the integument, subcutateous cellular tissue and cartilage, furnishing a very destructive type of the disease called lupus *devorans* or l. *vorax*.

We prefer to make but two varieties of the disease, lupus *vulgaris* and lupus *erythematosus*.

Lupus *vulgaris* is the common form, and begins with the deposit of tubercular matter in the deep layers of the skin. Its seat is ordinarily the face, sometimes the scalp, and very rarely on any other part of the body. Very soon the spot where this new growth occurs becomes a livid red, is raised and a thick crust forms on it, suppuration occurs beneath the crust, and its progress is indolent, undermining the tissues beneath while yet the scab remains. The cicatrix resulting from the healing of such ulcerations is characteristic, and which you observe good examples of here.

The other variety, l. erythematosus has quite different habits and appearances which we shall speak of when we have a case to present before you.

Much more important than distinguishing the different varieties of lupus from each other is it to distinguish lupus from other diseases.

What you are most likely to confound it with, are cancerous and syphilitic ulcerations of the skin. The eating character of lupus has caused it to be called by some authors cancroid, but my advice to you is, to avoid those terms which imply a mixing of diseases of any kind. A thing is either a cancer or it is not, and the student should not get in the habit of using indefinite terms if he would make a definite diagnosis.

Lupus is distinguishable from cancer in this, that the latter is painful, and progresses rapidly, and inflames the contiguous lymphatic glands, while the reverse is true of lupus. It is distinguished from syphilis by its seat, the early history of the ulceration and the constitutional symptoms. Lupus appears very rarely in infancy, or for the first time in persons of advanced age; it is a disease of youth and of the prime of life.

This woman, now about fifty, was first attacked by the disease while yet in her prime. From scars upon her legs and the history which she gives of them, we know she had scrofulous ulcers during childhood; that the strumous diathesis was manifested early in life; and that at about forty years well marked lupus appeared. It is now nearly a year since she applied to us for relief, and although she improved for the first two months very rapidly, yet a relapse supervened, the disease attacked the pharynx, and, during its ravages in the throat, she came very near dying from edema of the glottis. The consequence of this complication was a pulmonary inflammation and a profuse bronchorrhea, which debilitated the patient very much and caused extreme emaciation. The *embonpoint* she now presents is due to the persistent use of cod liver oil.

The treatment which this patient has received is that which you will find best adapted to lupus *vulgaris* generally, i. e., constitutionally, cod liver oil and the syrup of iodide of iron, and locally the application to the ulcers of a caustic to destroy the diseased tissue, and afterwards dressing with charpie, wet with one or the other of these solutions: ℞. Hydrarg. Bichlor. gr. vi, Glycerinæ ʒi, Aquæ puræ ℥iii. M. ft. sol; or, ℞. Potassii Iodidi ʒi, Tinct. Iodinii ʒii, Aquæ puræ ℥x. M. ft. sol.

The caustic which we prefer is the acid nitrate of mercury, and it should be applied with a glass brush, thoroughly, around the edges of the ulcer, (the crust having been removed by forceps,) and if the ulcer is aggressive cauterize its entire surface. Apply the caustic every third day, and after a few hours, app'y the dressing as above, and so continue until you have a granulating surface, when you will discontinue the caustic and continue the other dressing.

During the indolent progress of this case I have exhibited many of the drugs which are recommended in such cases, but my opinion is that the treatment which I have just indicated is the only one from which the patient has derived any benefit.

The complications of course received a special treatment, as e. g, the edema glottidis was combatted by the inhalation of a tannin spray, but these form no essential part of the treatment of lupus.

The success attained in this case is very satisfactory, considering the extensive ravages which the disease has made, and the fact that it is one of the most difficult of all the skin diseases to cure.

NOTES OF A CASE OF FATAL POST-PARTUM HEMORRHAGE, IN WHICH TRANSFUSION OF BLOOD WAS PRACTISED.

By W. S. Playfair, M. D., F. R. C. P., Assistant Obstretric Physician to King's College Hospital, and Physician to the Evelina Hospital for Sick Children.

Cases of severe post-partum hæmorrhage in which transfusion of blood is called for, are fortunately so rare that our experience of that operation must always be limited. It seems to me of importance that every case in which it is practised should be recorded for the benefit of others, even when, as in the one I am about to relate, this last expedient may not have proved successful. I believe it to be of the utmost importance that our failures should be recorded as faithfully as our successes, and I therefore make no apology for bringing the history of this case under the notice of the profession. It is fair to say, however, that so far as the immediate results of the transfusion were concerned it answered my expectations, if not fully, at least to a sufficient degree to make me think that it would have had the desired effect of rallying the patient had it not been for the unfortunate recurrence of the hemorrhage, which resisted every method of treatment, even (for the first time in my experience) the repeated injection of a solution of perchloride of iron.

On the 2nd of December, at 11 A. M , I was summoned to Mrs. ——, a patient under the care of my friend Mr. Lattey, of Kensington. She was thirty-three years of age, and the mother of three children, the youngest being seven years of age. She was a lady of delicate health, and had been somewhat more or less of an invalid. Her labor had been easy, the pains having commenced at 5 A. M., a living and healthy child having been born at 9 45 A. M. The uterus apparently contracted well, although there was some little difficulty about the removal of the placenta. The usual pad and binder were applied. About an hour after delivery, Mr. Lattey, being fortunately still in the house, a sudden gush of hemorrhage commenced. On removing the binder, the uterus was found to be distended with clots. These were removed, and the usual means for arresting the flow were at once resorted to, in the application of which Dr. Pearson, of Phillimore-gardens, lent his aid. Ice-cold water was injected into the uterus, ice in lumps was placed in the cavity of the uterus, and applied externally. Firm pressure was adopted. Ergot was administered by the mouth and rectum, brandy and beef-tea were freely given, and, in fact, every means usually employed were resorted to before my arrival, except the intra-uterine injection of the perchloride of iron, of which there was none in the house, but it was sent for as soon as possible. In the meantime, however, the patient had passed into a state of the utmost danger. When I saw her she was cold and almost pulseless, or rather her pulse was a mere thread, which every now and then could not be felt at all. She had the usual sighing respiration and hiccough of extreme exhaustion. The hemorrhage had ceased, and the uterus was fairly contracted, but felt spongy and soft as if it would again relax whenever pressure was removed from it; and I thought it best to provide against the recurrence of the hemorrhage by injecting the uterine cavity freely with the perchloridge of iron. It was now about 11.30 o'clock, and the patient went on from bad to worse, although there was no fresh flooding, until 2 P. M., when she seemed on the point of death.

Mr. Lattey, Dr. Pearson, and I, came to the conclusion that her only hope lay in transfusion, which we determined at once to practise. I had read with much interest Dr. Beattie's remarkable case of successful transfusion recently published in the *Dublin Quarterly Journal*, and I had provided myself with the apparatus used by him. It consists, as may be remembered, of a large pipette holding some eight ounces of fluid, to one extremity of which is attached a fine caoutchouc tube, at the end of which was the tube for inserting into the vein, which in my case was that recommended by Dr. Richardson as most suitable for transfusion. The atmospheric pressure is sufficient of itself to drive the fluid through in a steady stream. This seemed to me to be the most simple and satisfactory apparatus we possess, and it answered to perfection in Dr. Beattie's case. I anticipated the best results from it, and on trying it with water the stream was full and abundant; but, as will presently be seen, I was eventually obliged to use an ordinary syringe.

The steps of the operation were precisely those recommended by Dr. Beattie. Mr. Lattey was good enough to supply the blood, which was drawn from his arm in a full stream, and rapidly stirred as it flowed. As soon as the fibrine was separated, it was strained through a piece of fine muslin, previously dipped in boiling water, into a finger-glass floating in a bowl of water at the temperature of 106 degrees. From this it was transferred into the pipette, which, with its attached tubing, was placed in water at the same temperature. All this was done leisurely in an adjoining room, and thus all fuss and flurry were avoided, the advantage of which, under such painful circumstances, can hardly be over-estimated.

We now proceeded to search for a suitable vein in the patient. A fold of skin at the bend of the left elbow was pinched up and divided by a lancet, and at the bottom of the incision thus formed a vein was found, but with considerable difficulty, Underneath this a needle was passed, but this, unfortunately, got displaced by a movement of the patient, and all our endeavors to find it again were fruitless. The difficulty was due to the quantity of adipose tissue, and the entire absence of blood in the veins. Eventually we determined to look for a vein in the right arm rather than waste time in further search. In this we succeeded perfectly, and after passing a probe under the vein, and making an opening into it, we easily introduced the nozzle of the injecting apparatus. To our great surprise, however, but little blood flowed through the instrument. Fancying it might be blocked up by a piece of fibrine in the tube, I removed it, and found it worked perfectly out of the vein, but on reintroducing it a second time met with the same failure. The only explanation I can give of this is that the wall of the vein fell over and blocked up the opening of the nozzle, which is bevelled off the upper surface of the tube, and that the propulsive power was not sufficient to overcome the obstruction, After repeated endeavors I was obliged to desist. I now employed an ordinary ear syringe with a fine nozzle, and with this the transfusion was effected readily. From five to six ounces of defibrinated blood were injected.

A decided improvement now commenced. Our patient became warmer, breathed more naturally, opened her eyes, and her pulse became distinctly perceptible. She was able to take Brande's essence of beef and brandy. For about an hour the improved state continued, and we were becoming sanguine as to the results. At this time, unhappily, a fresh gush of hemorrhage took place from the uterus, not to any great extent; but sufficient to prove very serious in the patient's condition. I lost no time in again injecting the perchloride, with the effect of immediately stopping the flow. But the pulse disappeared, and the livid coldness of the extremities previously felt again showed itself. We discussed the advisability of repeating the transfusion; but, as the patient was able to swallow, and had shown some signs of rallying, we determined to postpone it. For about an hour she remained much in the same state, neither losing nor gaining ground, but able to take the beef essence and brandy in small quantities, so that we hoped for the best. I was now obliged to leave her for a short time, Mr. Lattey remaining in attendance. On my return, in about an hour, I found that, during my absence, a fresh flow had taken place, and that a third injection of the perchloride had been made. In the interval there had been no loss at all, the uterus was firmly contracted, and the discharge was sudden and unexpected. It sufficed, however, to turn the scale, and the patient had died a few minutes before my return, three hours after the transfusion and seven hours after delivery.

In considering the lessons to be learnt from this melancholy case, the most important seems to me to be the farther evidence it gives of the importance of defibrinating the blood before commencing the operation. My experience on this point fully corroborates that of Dr. Beattie in the case already alluded to. The process by which this is effected is extremely simple, and the fact of not being hurried by the necessity of completing the transfusion before coagulation has begun is of immense importance in an operation every step of which should be conducted leisurely and calmly. It is certain that the removal of the fibrine does not in any way deteriorate the blood for the purpose of transfusion, and it is an expedient the adoption of which I should strongly recommend. I do not look upon the failure of the operation as any argument against its adoption in suitable cases. On the contrary, it answered the purpose of rallying the patient when at the point of death, and of keeping her alive for several hours. The sudden and unexpected gush of hemorrhage, occurring after the injection of the perchloride, was the turning point of the case, an occurrence of great rarity after that invaluable hemostatic has been used in post-partum flooding. The case was also in other respects a most unfavorable one, the patient being very weakly, and much debilitated by previous illness.

I regret that Dr. Beattie's simple and inexpensive instrument should have failed to act satisfactorily. A transfusion instrument that can be purchased for a few shillings and is within the reach of all, is a great desideratum, since many lives have been lost because practitioners have not the means of transfusion at hand. In some of the successful cases an ordinary syringe with a fine nozzle was used, and this I found to answer perfectly. The objections to this disappear when defibrinated blood is used, and such an instrument is in the armamentarium of every practitioner, or could always be procured at the nearest druggist's shop.

MEDICAL EXPERTS—REFORM NEEDED.

In the trial of the German physician Schœppe, in Pennsylvania, for the murder of a woman, the conviction depended mainly on the testimony of a chemical expert, touching the contents of the stomach of the deceased. In the more recent trial of Mrs. Wharton, in Baltimore, charged with the same crime, the same expert being enlisted on the side of the prosecution, his analysis would again have led to conviction, and was on the point of doing so, when, happily for the accused woman, a searching investigation instituted by other chemists proved him incompetent, or at least threw so much doubt on his testimony as to lead to her acquittal. When Schœppe was found guilty, many intelligent persons questioned the chemical testimony on which he was condemned, and it was only through their earnest intercession that his execution has deen delayed. Doubtlessly his life will be spared, and even he may be pardoned.

These facts show the propriety of adopting some plan of securing the evidence of experts who are truly competent, and making them officers of the State, and not instruments of the parties litigant. If such fatal errors may occur within the range of a fixed science, how much greater is the risk when the question of insanity is involved, and when the life of the accused rests on the opinion of the witness, rather than on fact? At present, the two parties in a trial both bring their experts to contradict each other. In matters of this kind, circumstances alien to the merits of the question may bias the judgment of honest and capable men and lead to opposite opinions. And when the field is open to the choice of incapable and dishonest "experts," the results are inevitably obstruction of justice, confusion of the jury, and discredit and dishonor to the profession which supplies the so-called experts.

The remedy is obvious. In all important trials, experts should be officers of the State or of the Court, either holding their place for stated terms, as certain chemical experts already do, or appointed *pro re rata*, by the Court. By such means the services of competent men could be procured. As it now is, the necessity of hanging about a court-room hour by hour and day by day, and without compensation, deters many physicians of the best qualified class from serving as witnesses, and leaves one learned profession to be represented in the presence of another and before the public, by the most unlearned of its members.

These remarks should derive additional weight from the unusual and increasing number of trials involving the plea of insanity, and in which are involved property of great value, and life, of greater value than property.—*Pacific Med. Jour.*

MEDICAL GLEANINGS.

PHOSPHORUS IN WAKEFULNESS, BY WILLIAM A. HAMMOND, M. D.—Dr. Hammond recommends twelve grains of phosphorus to be boiled in one ounce of almond oil, and filtered. Half of this is to be mixed with an ounce and a-half of gum arabic, adding fifteen drops of some aromatic oil. Of this mixture the dose is fifteen drops, containing one twenty-fourth of a grain of phosphorus. Three doses are given before bedtime, sleep being generally produced on the second day if not on the first. The dose may be increased a drop daily until twenty drops are taken, or signs of gastric irritation supervene.

WHEN IS A SMALL POX CONVALESCENT SAFE TO HIS NEIGHBORS? —In the London *Lancet*, Dr. A. Collie, of the Homerton Fever Hospital, says: One important question may be here answered—viz., when a small-pox patient may be considered free of danger to his neighbors? This, in reference to the public, is a most important question, and one which requires an accurate answer. We have thought over this very carefully, and we believe that we have arrived at an unassailable conclusion. It is a trusim to say that a healthy man cannot give to another a contagious disease; for the question at issue is, when and how a person may be certainly recognized to be in a state of health. Now, you know the ordinary signs of health: a certain temperature, or rather range of temperature, a quite pulse, a clean tongue, a clear mind, etc. When you find these conditions in a small-pox patient, he is in a state of health. But—and this "but" is very important—certain products of disease remain for an indefinite time attached to the body. These are scabs, and the scales which follow them. When these are quite gone, your patient well washed, and clean clothing put on, you may send him anywhere without let or hindrance. The practice here has been that, as a patient is ordered out of bed, he has a bath, and this is repeated every second day until he leaves the hospital. It facilitates the removal of the scabs. No person has ever been sent out of this hospital with a small-pox scab or scale.

TREATMENT OF VOMITING IN PREGNANCY BY POSITION.—At a meeting of the Boston Obstetrical Society, Dr. Read reported the following case: The patient was in the fifth month of pregnancy. For six weeks she had had labor pains, with constant nausea and vomiting; during this time the os was dilated so that the fontanelle could be felt. All the ordinary remedies, as well as subcutaneous and rectal injections, and suppositories, had no effect. The patient was so depressed and weak that the question of inducing labor was entertained; but as a last resort, before introducing Barnes' dilators, it was thought best to try the effect of position, by placing the patient on a bed, and elevating the hips as high as conveniently possible above the level of the shoulders. This measure was followed by the immediate diminution in the intensity of all the symptoms, and after a short time by their entire subsidence. In ten days the patient was about the house, attending to her ordinary duties. Labor came on at the end of the sixth month, after a shock from hearing disagreeable news, and terminated in twenty-five hours. Rigidity of the os rendered the first stage tedious The child was a healthy, strong boy; the mother did well, but the child afterward died.

ERGOT IN DYSENTERY.—A French physician claims to have succeeded in the treatment of epidemic dysentery by the use of ergot. He gave 7 or 8 grains every four hours, the cure being effected in ordinary cases in two or three days. After a few doses constipation is produced, which lasts three or four days. Ergotin has the same effect.

THE PRINCE OF WALES AND HIS DOCTORS.—The recent illness and recovery of the Prince of Wales appear to have awakened in the people of England a lively interest in the medical profession in general. From the comments made by certain prominent newspapers, one might infer that physicians were until lately regarded as of little worth, and that the illness of a royal patient was necessary to qualify the public to appreciate their merits. Certain it is that medicine and its practitioners have risen greatly in popular estimation since the event referred to.—*Pacific Med. and Surg. Journal.*

GALVANIC TREATMENT OF BED-SORES AND INDOLENT ULCERS.—Dr. Wm. A. Hammond recommends, for indolent ulcers and bed-sores, the galvanic treatment as first suggested by Crussel, of St. Petersburgh. He says: "During the last six years I have employed it to a great extent in the treatment of bed-sores caused by disease of the spinal cord, and with scarcely a failure; indeed, I may say without any failure, except in two cases where deep sinuses had formed, which could not be reached by the apparatus. A thin silver plate—no thicker than a sheet of paper—is cut to exact size and shape of the bed-sore; a zinc plate of about the same size is connected with the silver plate by fine silver or copper wire six or eight inches in length. The silver plate is then placed in immediate contact with the bed-sore, and the zinc plate on some part of the skin above, a piece of chamois-skin soaked in vinegar intervening. This must be kept moist, or there is little or no action of the battery. Within a few hours the effect is perceptible, and in a day or two the cure is complete in a great majority of cases. In a few instances a longer time is required, I have frequently seen bed-sores three or four inches in diameter, and half an inch deep, heal entirely over in forty-eight hours. Mr. Spencer Wells states that he has often witnessed large ulcers covered with granulations within twenty-four hours, and completely filled up and cicatrization begun in forty-eight hours. During his recent visit to this country I informed him of my experience, and he reiterated his opinion that it was the best of all methods for treating ulcers of indolent character and bed-sores."

VERATRUM VIRIDE IN PUERPERAL CONVULSIONS.—D. Colvin, M. D., writes from Clyde, N. Y., January, 1871, to the editor of the *Medical Record*, as follows: "In reading the proceedings of the New York Pathological Society, I was much pleased to see that the use of the veratrum viride in puerperal convulsions was meeting with much favor. For the past five years I have used it in many cases with better results than from any other course which I had heretofore. But a few weeks ago I used it (not in such doses as were reported by Dr. Eearn to have been given by a homeopathist) in a case of eclampsia, where the consulting physician and myself could distinctly count the pulsations at one hundred and seventy per minute, and where no ameliorations of symptoms could be obtained with the use of chloroform and the other ordinary remedies in use for this grave malady. I gave Squibb's fluid extract, beginning with five drops, and increasing the dose one drop once in two hours until a decided impression was made upon the heart's action. Seven drops, at that interval, were all that was required to sufficiently diminish the pulsations to bring about the desired result. I wish to say a word relative to the use of the same remedy in pneumonia. For eight years past I can truly say that, with the exception of an occasional Dover's powder, I have quite exclusively relied upon the veratrum in the treatment of this disease. Within the past year I have substituted the choral hydrate for the Dover's powder, and find it answers a better purpose."—*Georgia Medical Companion.*

MORPHIA SUBCUTANEOUSLY IN CHOLERA.—Dr. Augustus Werry, of Constantinople, writes: (*Lancet*) "Soon after the break of the disease in the suburb on the Golden Horn, where all the English mechanics working in the Imperial Arsenal reside, Dr. Patterson, the surgeon to the British Seamen's Hospital in this city, and I, having repeatedly failed in giving permanent relief to the most urgent symptoms of the disease by almost all the agents usually employed for such a purpose, decided upon giving a trial to the subcutaneous injection of morphia, merely hoping, at that time, to quiet thereby the great excitement of the nervous system in the presence of a mortal disease, and to allay the irritability of the stomach to the extent of allowing other remedies to be retained. To our great delight, and to the unspeakable comfort of our patients, we found in the first two or three cases that there was no further occasion for drugs of any sort; for in fifteen or twenty minutes after the injection the patients fell into a calm sleep, from which they awoke in two or three hours bathed in a warm perspiration, and expressing themselves as feeling "quite well again." After such success we were, of course, encouraged to persist, and I have now before me the records of twenty-two cases in which I used it with the most beneficial results. I have not time to enter into the details of each case; but I may say generally that there is hardly a condition known in the active stages of the disease in which I did not find the method of great use—violent vomiting,severe and persistent crampsin all the limbs and in the chest, so strong as to jerk a man out of bed; dyspnœa almost threatening suffocation; reduction of temperature to such an extent that every part of the body, tongue included, felt icy cold to the touch; diarrhea so urgent as to be evacuated in bed before help could be given by the attendants; paralysis of the sphincter ani, so that stools were passed unconsciously; the facies choleritica in all its ghastliness; with the circulation so weakened that the pulse was imperceptible at the wrist. Any of these conditions I have seen completely and permanently removed by one injection of morphia. In several cases I had, upon the recurrence of the symptoms in two or three hours, to repeat the injection, and in one or two instances I had to do it a third time—perfectly successful in all cases in mitigating the sufferings, and thus dimishing the consequent exhaustion. The dose of morphia injected varied from the one-twelfth to the one half of a grain, according to the age and the circumstances of the patient."

OILING URETHA TO PROMOTE CATHETERISM.—Dr. James C. L. Carson writes to the editor of the *Lancet*: "Your number for November 11th contains a letter from Mr. Barrett, recommending the injection of oil into the uretha previous to the use of the catheter. A far more convenient method of oiling the passage was suggested about a year since in, I think, your journal—namely, to dip the catheter into a vessel containing oil, and whilst it remained in the oil to place the point of the finger of the right hand on the upper end of the catheter, and keep it there till the lower end of the instrument is inserted into the urethra, when the finger may be lifted off the top. On this plan the catheter will lift and carry a sufficient quantity of oil to the urethra; and when the finger is lifted, the oil will flow from the instrument into the canal, and lubricate the stricture. I have tried this plan in several cases of an aggravated character with marked success. Two of these patients were sent to the infirmary for the purpose of being punctured, as the surgeons in attendance, who were well up to their duty, had failed in passing the catheter. I tried the ordinary plan, and failed also; but on using the oil as already described, I succeeded without much trouble."

OPENING OF BUBO WITH CAUSTIC POTASH.—Dr. McNamara (*Indian Med. Gazette—N. Y. Med. Gazette*) opens acute bubo by potassa fusa instead of the knife, and thus avoids the tedious process of unhealthy granulation. The bubo is first covered with several layers of sticking plaster, in which a hole is made half the size of the intended opening, and the caustic is then rubbed on the exposed skin. The spot is covered with sticking plaster and an opiate administered. A black eschar is formed, which is removed in a few days by a poultice, leaving a healthy ulcer, which soon heals by the ordinary treatment. Dr. McNamara is very confident that this treatment will always prevent the production of the pale, flabby and unhealthy granulations which are so common in bubo. The patient suffers very little pain from the caustic used in the manner described.

PARTIAL DISLOCATION OF HEAD OF RADIUS.—Dr. Lyell, of Glasgow, quoted in the *Medical Press and Circular*, describes the case of a child whose hand was fully prone and the fore-arm semi-bent, though no displacement of the bones at the elbow could be detected by the touch. He took hold of the child's hand (the right) in his own right hand, and the elbow joint in his left, placing his thumb over the head of the radius, then supinated the hand fully, at the same time extending the fore-arm. In the act of supination he felt a slight jerk, on which the motion of the arm was completely restored. He thinks it not an uncommon accident, though not described in the books.

TREATMENT OF DIABETES —Dr. G. Moore, of Hastings (*British Med. Journal*), lately read a paper on a case of diabetes of three months' standing. The patient had previously been rigorously dieted, Under a bread-and milk diet (three pints of the latter daily) and the administration of effervescing salines, with iron, the urine became perfectly free from sugar in a fornight, and the patient speediiy gained flesh and strength. Dr. Moore expressed himself strongly in favor of the free use of milk in such cases.—*N. Y. Medical Record.*

TREATMENT OF GONORRHEA BY WARM WATER INJECTIONS.—Dr. John O'Reily (*Am. Practitioner*), in recommending warm water injections in the treatment of gonorrhea, says, that the subjoined conclusions may be drawn from his experience: 1st. That gonorrhea yields to local treatment, and even water injections. 2d. That water injections or medicated lotions owe their efficiency to their frequent applications. 3d. That the common small syringe should be done away with in treating this disease, and none used but those throwing a continuous stream. 4th. That large injections, by fully distending the mucous membrance of the urethra, insure a speedier cure than those less copious.—*Canada Lancet.*

CARBOLIC ACID TO PREVENT PITTING AFTER SMALL-POX.—Dr. Scott, of Dumfries, (*Edinburg Med. Jour.*, *Boston Med. and Surg. Jour.*) "having experienced the beneficial effects of carbolic acid in preventing disfiguration of the face in severe cases of burning with gunpowder, and with sulphuric acid, suggested its employment, with this object, in a number of cases of small-pox. It was applied in the following manner: From the first appearance of the eruption, until the completion of desquamation, the face was kept constantly moist with the solution of the acid, in olive oil (one to eight). The results have been most satisfactory; of all the cases treated in the Dumfries Infirmary (several of which were of the confluent type) not one has, on recovery, presented the slightest trace of disfiguration. The application, moreover, was most grateful to the patients' feelings, allaying the itching and irritation, and preventing the desire to scratch off the scabs, which is so annoying to the sufferers in the later stages of the disease. In the case of gunpowder burning, the acid, in addition to its antiseptic and anæsthetic properties, appears to have the effect of dissolving the carbon and of withdrawing it from the skin. In a case treated about twelve months ago by Dr. Scott, by the above described method, the patient, a young gentleman, was so disfigured as to present the appearance of a negro, the face being blackened, his lips swollen and everted, eyelids closed, hair and beard much singed, intense intolerance of light, and profuse lachrymation, with great suffering. The application of the carbolic acid and oil was followed by instant relief, and the oil becoming more fluid from the heat of the skin, ran over the skin with the appearance of thick ink. The result of this treatment was that on recovery, which was rapid, there was not the slightest discoloration of the skin, and the face in a very short time presented its natural appearance."

BLOODLETTING IN PUERPERAL CONVULSIONS.—It is a great point in modern practice to descant on the empirical use of the lancet in former days, whilst there is quite as much empiricism in the unqualified disuse of it by modern extremists In a discussion in the N. Y. Pathological Society (*Medical Record*, January 2nd), a member condemned the practice in puerperal convulsions, saying "he believed in chloroform in all cases; it was the first thing he thought of, and it had never disappointed him." Dr. Small referred to the suffused face, bounding pulse, and pain in the head, with incipient paralysis, as denoting a condition not to be permanently relieved by chloroform, but requiring loss of blood. Dr. Briddon had seen a large number of cases of puerperal convulsions, and whenever he had treated them by venesection he had been uniformly successful. His point was to use the remedy early. In some cases when chloroform had been used first, with the effect of arresting the convulsions for a short time, venesection gave permanent relief, speedily restoring consciousness.—*Pacific Med and Surg. Journal.*

CHOLERA INFANTUM.—In the *St Louis Medical and Surgical Journal* for September, Dr. William S. Edgar gives an interesting account of the above disease. which is extremely fatal to infants under one year of age during the hot months. It may be said to be indigenous to cities in the United States, and is due chiefly, nay almost totally, to intense solar heat, which acts as an excitant to the liver, increasing biliary secretions and peristaltic action of the bowels, thus producing irritation of the mucous lining of the whole of the alimentary canal, with its results —vomiting, purging, and collapse. The little patients get no rest at night, as the temperature at that time still is very high in the summer, more especially in New York and Philadelphia, than in the cities of the Gulf States. Treatment: Hot fomentations to the extremities, and over the hepatic region, with a mixture containing spt. amm. co , creta. ppt. and creosote made up with syrup and warm infusion. A dose given every half an hour and upwards, as occasion required. Beef-tea and wine mixed injected per rectum, dilute iced whisky and water, by the mouth. If the sufferer gets over the worst, quinine and tannin are given in the Mississippi Valley to counteract malarial influences. The chief interest of note in the above plan of treatment is the "shelving" of mercury; minute doses of opium are exhibited if much pain be present.

SITTING POSTURE IN PROLONGED CATHETERISM.—R. Hanslip Sers, M. R. C. S., says, (*Med. Press and Circ.,*) as "In cases of stricture, organic or otherwise, considerable time and patience are required both by the operator and the operated. I permit the patient to sit upon a chair in a semi-recumbent posture, with the nates close to the edge and the knees widely divergent. This admits of any requisite manipulative process. In stricture, I have faith in prolonged sittings, at least in otherwise healthy country persons in the prime of life, to enable one *leisurely* to exert that steady pressure—gentle yet efficient—so familiar to the expert. The sitting posture answers admirably, and is superior to the upright, and I think also to the flat position."

WHAT A PHYSICIAN'S OFFICE SHOULD BE.—Professor McGraw' of the Detroit Medical College, in an address to the graduating class (*Detroit Review of Medicine*), raps certain practioners over the knuckles in the following style: "I have been in doctors' offices where a skull grinned from one corner, ghastly anatomical plates hung from the walls, and splints, suggestive of broken bones, were placed conspicuously in every corner. What a delightful resting-place for a sick woman, visions of death, disease, and injury, greeting her on every side! Now, gentlemen, make your offices pictures of comfort and cheerfulness. Banish from them every sign of your professional occupation, so that your patients may enter them not only without disgust, but with actual elevation of heart. I think, I need hardly say, that your apartments should be scrupulously clean, although I can recollect too many rooms occupied by physicians, whose windows were festooned with cobwebs and dead flies, and whose floors were stained with tobacco spit. I have been pleased sometimes to hear the occupants of such offices groan about the lack of custom, for if it is the duty of a physician to preach the virtues of cleanliness, he should himself be a living example of his own doctrine. Filthiness in a physician is, like dishonesty in a merchant, the very worst of sins."

Book Notices.

A PRACTICAL TREATISE ON THE DISEASES OF WOMEN. BY T. GAILLARD THOMAS, M. D., Prof. of Obstetrics and Diseases of Women and Children in the College of Physicians and Surgeons, New York, etc., etc. Third edition, enlarged and thoroughly revised. Philadelphia: Henry C. Lea. Cincinnati: Geo. E. Stevens & Co. 8vo. pp. 784. 1872.

A very high testimonial of this work is the fact that in three years it has reached a third edition. Surely a work that has met with such approval from the profession must indeed be a meritorious one.

It has been but a short time since we set forth at some length the merits of the second edition. This edition not only does not fall short of it, but is very much in advance. While the author has avoided increasing unduly the size of the work, the additions amount to nearly one-fourth as much as the whole of the previous edition. Many portions have been rewritten, and several new chapters introduced. It will be found that in making these changes his views have been modified upon many points. For this, he says, he offers neither apology nor explanation. One of these changes is the discarding of the term *chronic metritis*, and the substitution of that of *areolar hyperplasia*. Some of our readers who are better versed in gynæcology than we are, will be better able to judge of the merits of this new designation.

All the diseases of the female are so thoroughly discussed, and set forth in so lucid a manner, that it occurs to us that the practitioner has presented to him all the information that he can desire that can be made available in treatment. We do not believe that up to the present time a better work on the diseases of women has been published.

SMALLPOX, THE PREDISPOSING CONDITIONS AND THEIR PREVENTION, BY DR. CARL BOTH. Boston: Alexander Moore. Cincinnati: G. E. Stevens & Co.

This work contends that the disease consists in the escape of superfluous albuminous substances into the skin, brought about by a nervous irritation caused, in the first place, by the want of salt; that the proper use of salt is the scientific and most certain preventive of smallpox, both in theory and practice; and that a person who has a properly balanced blood can not catch smallpox under any circumstances of exposure.

Editorial.

Moral Responsibility.—A discussion took place recently in the Academy of Medicine of this city, on the insanity of J. R. Blackburn, found guilty last summer of the murder of his mistress. Some of the disputants took the ground that there should be admitted no such form of mental alienation as moral insanity. Prof. B. F. Richardson is reported to have said, "There should be no such thing as moral insanity. One knowing right from wrong should be held responsible; it is the only safe ground; it is the ground now occupied by the law. . . When the insanity is recognized that a man cannot restrain himself from the commission of crime, and yet knows right from wrong, there will be no safety for the community." Said Dr. J. J. Quinn, who at one time, for several years, had charge of the Lick Run Lunatic Asylum, now Longview, "The hereditary predisposition might well raise a suspicion, but is not of itself sufficient to prove the existence of insanity, *because every child of an insane parent does not become insane.*" (Ital. ours)

"The physical conditions referred to, in support of the presumption of mental disease, are defective vision, imperfect hearing, and incomplete partial paralysis. *Now, defective sight may exist in one or both eyes without insanity. If defective hearing indicates insanity, there are a great many more lunatics in the community than have been suspected.* (Ital. ours) . . . The demented have their perceptive powers weakened, so that they cannot perceive objects correctly; their memory is so greatly impaired that they cannot retain impressions long enough to compare or form an association of ideas; and incoherence of thought and speech follows. There were none of these prominent characteristics of dementia present in the case of Blackburn."

We were, at one time, ourself, quite incredulous as to the existence of moral insanity—that is, of a condition of mind that while the intellectual faculties were intact, or seemed to be, the sensibilities or emotive functions might be so disordered that the individual could not be held justly responsible for his moral conduct,—but more thorough observation, research, and reflection upon the subject have convinced us that the existence of moral mania, as a primary disease, is as well established as any other fact in medicine.. We never did believe, however, that to constitute a person morally irresponsible he must not be able to distinguish right from wrong in general; for such a belief would carry us back in our knowledge of mental operations to the good old times when every one was regarded an accountable being who could count as high as ten correctly and could tell his own name.

The mind is generally understood to consist of two departments—the intellect and the emotions ("the will being the final issue of the process of reflection or deliberation, which a man's life-culture has rendered him capable of, and represents a *conception* of the result with *desire;*" or, in other words, it is nothing but the *desire, or aversion, sufficiently strong to produce an action* after reflection or deliberation.) Now although these departments are closely related one to the other, and are more or less dependent upon each other—the emotions not being able to be called into action until an object to excite them has first been presented by the intellect—yet they have their line of demarcation separating them, and one may be seriously affected without the other being materially changed or but indirectly disordered. Great intellectual power, as we perceive every day, is every way compatible with deficient feelings, and superior emotional functions may exist along with an inferior intellect. Again we perceive the powers of the intellect daily failing without any change in the emotions when they are acted upon. The aged suffer from the decay of their perceptive faculties, the loss of memory, weakening of their logical powers, and yet their sensibilities remain the same, and do not fail until the intellect becomes so overthrown in all its faculties that objects are no longer brought before them.

If it is the affective faculties that give to each one his character, and not the reasoning powers.—if two men can have the same genius, and at the same time be as opposite in sentiment and behavior, under the same circumstances, as the poles—which is admitted by every one to be true, then are the intellect and the emotions different departments of mind, so independent in their action that a great change in one will not necessarily affect the other. If natural physical structure or constitution will make one man mean, selfish, and cruel, and another of the same powers of mind kind, generous, and noble, what is to hinder that disease should bring about such molecular alterations in the brain, that, while the intellect remains largely undisturbed, the propensities may become revolutionized? There is nothing improbable in it. A man commences indulging in the use of liquor, not from appetite, but from other causes. After a while an appetite is formed—a dipsomania is set up—and he will continue the indulgence though misery, disgrace, ruin, and death stare him in the face. He may weep tears of bitterness in consequence, but still he will continue on in his course. He knows he is doing wrong, and fain would not do it, but the sensibilities—the passions, emotions, propensities,—being the motives to action in both the sane and insane, and not the intellect, except when an idea passes directly outwards, he is led on by them, morbidly changed, to continue on in his course. Whatever feeling exists in a man either congenital or acquired, such govern the conduct, no difference what the testimony of the intellect is in regard to them, for the emotive functions move the man, and there never would be any action without them.

But we have no intention in the least to write an essay on the Blackburn case. We only design to enter our protest against such views of moral insanity as expressed by Drs. Richardson, Quinn, Reamy, and others; for they are radically wrong, and are calculated to do much harm—sending to the gallows men charged with crime who are innocent. Such views, although emanating from gentlemen of the highest capacity, are unsustained by every modern alienist writer, and are to be ranked among the crude ideas of a century ago, when little or nothing was known in regard to the physiology of the nervous system. It is absurd for Dr. Quinn to assert that hereditary pre-disposition and partial paralysis were not evidences of mental unsoundness in Blackburn, for the reason that individuals, in the line of hereditary descent, frequently do not become insane, and paralysis may exist without insanity, as it would be to assert that it was not proof that an individual, shot through the head, apart from the evidence, had been killed thereby, because a crowbar had been known to pass through a man's brain without producing any serious results. The Dr. possesses logical powers, far above mediocrity, but they failed him, in our opinion, on this occasion.

As evidence of moral insanity apart from the vicious act itself, Dr. Prichard, who first called attention to this form of mental derangement, says: "There is often a strong hereditary tendency to insanity; the individual has previously suffered from an attack of madness of a decided character; there has been some great moral shock, as a loss of fortune; or there has been some severe physical shock, as an attack of paralysis, epilepsy, or some febrile or inflammatory disorder, which has produced a perceptible change in the habitual state of the constitution. In all these cases there has been an alteration in the temper and habits."

After giving an account of a lady affected with suicidal mania that came under his personal obsevation, Dr. Maudsley adds: "In face of such an example of uncontrollable impulse, what a cruel mockery it is to measure the lunatics responsibility by his knowledge of right and wrong! Cases belonging to the same class as the foregoing, but in which the impulse was homicidal, have been recorded by many different observers."

Dr. Blandford, the most recent English writer on insanity, states in one of his lectures: "It has been laid down by certain of the judges, that an alleged criminal lunatic is responsible for his acts if he knows the difference between right and wrong; and you will be asked in crown cases whether you think that a prisoner knows right from wrong. No more curious test of insanity was ever invented, none which more plainly shows the absolute ignorance of the subject prevailing among those who have no acquaintance with the insane. . . . .

"Some lawyers do not scruple to say that a lunatic should be put to death if he commits a murder, as if he were sane; while it has been said by a judge 'that it was not merely for the jury to consider whether the prisoner knew right from wrong, but whether he was at the time he committed the offence deranged or not.' Common sense and common humanity must coincide in looking upon the latter as the only view to be taken of the question, and it will be for you to confine yourselves in all such cases to the simple exposition of the insanity of the individual, if in your opinion it exists."

Says Dr. Hammond in his late work on "Diseases of the Nervous System:" "Many instances of so-called moral insanity may properly be placed under the head of volitional insanity, for they are characterized by an inability to exert the will so as to refrain from the perpetration of acts known to be crimes. Of such are cases of kleptomania, dipsomania, pyromania, etc."

If space permitted, we could give extracts from the writings of many other eminent alienists, showing that such a morbid affection of the emotive functions may exist independent of any primary intellectual derangement, which may constitute the individual irresponsible for his moral conduct. Prof. Richardson stated that one knowing right from wrong should be held responsible is the ground held by the law. Says Lord Broughman: "One judge lays down the law that a man is responsible if he is 'capable of knowing right from wrong;' another says, 'if he is capable of distinguishing good from evil:' another, 'capable of knowing what was proper:' another; 'what was wicked.' He was not sure the public at large 'knew right from wrong,' though their Lordships knew that 'distinguishing right from wrong' meant a knowledge that the act a person was about to commit was punishable by law."

Prof. C. E. Brown-Sequard, M. D., the distinguished physiologist, who is celebrated throughout Europe and this country for his researches in the physiology and pathology of the nervous system, was married in this city, Thursday, March 14th, to Miss Carlisle, daughter of the late George Carlisle, Esq. On the day before his marriage he gave a lecture, in the amphitheater of the Cincinnati Hospital, on the Functions of the Brain, to a large assemblage of the profession of the city. He was introduced to the audience by Dr. M B. Wright. He expressed the conviction that pretty much the whole of the theories now held in regard to the brain and its functions were founded in error, and that a new physiology and pathology of it would have to take the place of the present one. The lecture was listened to with much interest.

Professor Brown-Sequard gave another lecture before the medical profession, at the Cincinnati Hospital, on Thusday, March 28. Subject, "On the Modes of Origin and Cure of Nervous Affections."

OBITUARIES.

Died, at Newburg, N. Y., Sep. 15th, 1871, of tubercular bronchitis, EDWARD E. LEE, M. D., aged 35.

Dr. Lee was a native of New York city, a student of Dartmouth College, and a graduate of "The Twenty-third Street N. Y. Medical College," having been a student of Prof. E. R. Peaslee, and demonstrator of anatomy. After a few years hospital practice at home and in Europe, he was induced, while traveling West, to locate in Kalamazoo, Michigan, where he practiced most successfully for three years; but his wife's health needing change of climate, he returned to New York, and soon after settled at Newburg, where again he enjoyed an active practice and good health for three years. A slight hemorrhage then forewarned him of what might come, and although there was no after evidence of serious lung trouble until last summer, he took all care of his health, and did but little professional work. He suffered some weeks from indigestion and general debility until July 15th, when, without a cough, he had an attack of bleeding, from the effects of which he never recovered.

Favored with the friendship of most of the eminent practitioners of New York city, they sought in all ways to comfort him, and to give him and his family hope, but he seemed to be fully aware himself that he would not get well.

On September 19th a meeting of the physicians of Newburg was held at the residence of Dr. Ely, and resolutions expressive of high respect and admiration of the deceased were passed.

DR. I. S. DODGE, one of the oldest practitioners of Cincinnati, died at his residence, near Avondale, March 1st.

He was born October 6th, 1807, and was a graduate of Kenyon College. After his graduation he came to Cincinnati, where he pursued his professional studies and settled.

The loss of his daughter, Mrs. Hull, was a terrible blow to him, and since that time he had been perceptibly failing. Thursday morning, Feb. 29th, he was prostrated by an attack in the nature of apoplexy, which resulted fatally as above.

His attainments in his profession were highly respectable, while he possessed a warm and tender heart, and a gentle manner which fitted him to be the friend and comforter, as well as the physician, of his patients, and which greatly endeared him to many. His wife and three children survive him.

We have received No. IX. of the COMPENDIUM OF MEDICAL SCIENCE for January 1872, published by Dr. S. W. Butler, of Philadelphia. It should be taken by every American physician. None other does justice to American medical literature. Published January and July, each number containing over 300 pages. Price $3 a year including postage.

THE LITTLE CORPORAL—This is a juvenile monthly magazine published at Chicago, at $1.50 a year. It is one of the best periodicals of the kind with which we are acquainted. Every family having young folks should take it. It contains no trashy reading matter.

THE

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CONGENITAL MALFORMATIONS.

By A, J. MILES, M. D., Prof. in Cincinnati College of Medicine and Surgery.

Through the kindness of Dr. W. H. Webb, of Adams, Ind., we have added to the Museum of our College another very interesting specimen of pseudencephalic fœtus. The Dr. sends the following account of the mother during confinement.

" I was called to see Mrs. M. on Jan. 31, 1872, and found that there was rupture of membranes and the waters were escaping. There being no dilatation of the os uteri and no labor pain, I left; returned in twenty-four hours and found there had been slight hemorrhage, but no dilatation of os, or pain. About 2 o'clock A. M., Feb. 2nd, I saw the patient again. Labor had now set in, and in about four hours this monster was born, the knees presenting. The mother had been a very healthy woman, and the mother of three other children, all born alive and perfectly formed. During the months of August aud September last, Mrs. M. was affected with ordinary chills, intermittent fever, which was easily broken up with quinine, but returned some three or four times. Mrs. M. had an easy labor and speedy convalescence, and is now well."

The fœtus is of full term, small size, and perfectly formed, except the malformation of the head and neck. From an anterior aspect there seems to be absence of the neck; the head drawn back resting on the shoulders, and the chin on the sternum. On the back part of the malformed head the greater portion of the brain is resting, forming a tumor, outside of the cranial bones, and enclosed in the membranes of the brain; and also by the integuments of the scalp, with the exception of a circular space about an inch in diameter. The brain was about normal size. Upon dissection we found the head was drawn back by the absence of the occipital bone, in place of which was an uneven foramen, rather triangular in shape, the sides being formed by the posterior part of the parietal bones and the base of the atlas. The cavity being very small contained the medulla oblongata, the anterior lobes of the cerebrum, and the pons varolii; the middle and posterior lobes of the cerebrum and cerebelli lay externally, and upon the back of the head enclosed in the sac before mentioned; the sac had, also, within its cavity the posterior part of falx cerebri and tentorium cerebelli. There was no defect in the vertebra. The temporal bone upon the right side was larger than upon the left; and the mastoid process was larger upon the right side and encroached upon the border of this uneven foramen; the mastoid process upon the left side was in a rudimentary state. There was a perfect organization of the twelve pairs of nerves.

In this connection I will give another case of malformed fœtus that I added to the museum two years ago, which probably comes under the head of acephalorachius.

I attended the mother during the confinement and found nothing unusual in the labor except an unusual amount of liquor amnii, the labor continuing only about two hours. Her two previous children were born perfect. The mother of this fœtus had an attack of acute dysentery between the second and third months of gestation, which was followed by continued fever. The fœtus was about eight months, small, and lived about an hour after birth. From front view it resembled the head of a toad, having apparently no cranial bones above the superciliary ridge. The chin and rudimentary head seemed planted firmly on the shoulders, and drawn backward.

Upon a careful dissection we found there was entire absence of all the bones of the spine except a rudimentary condition of bone that partook in shape of the atlas; there was entire absence of both parietal bones, and of all the occipital bone except a small portion of the condyles and posterior part of basilar process. There was no foramen magnum, and no manifestation of the least trace of a spinal canal. The frontal bone was absent, all except that which formed the orbital plates, and projecting below a transverse line drawn on a level with the orbital plates.

From this great malformation and absence of bones there is no cranial cavity, but the brain, of normal size, was resting on the regions of the neck and back, covered and protected only by the membranes of the brain. The right scapula was lying down against the right innominate bone. A bony mass, resembling the crushed remains of the occipital, lay upon the side of the median line and in relation with the left innominate bone. The fossa that gave lodgment to the brain is shaped like the hollow of an inverted pyramid, the anterior slope giving rest to the medulla, and representing the basilar process. A small spicula of bone was inserted between the two innominate bones and corresponded to the sacrum; upon the right side of the median line, and also upon the right side of the mass of bone that represented the occipital, there was, in the soft structure, a spinal canal about three-fourths of an inch long, in which was contained the only trace of a spinal cord observable. The bones that formed the floor of the cavity of the skull were so distorted that it was difficult to find any trace of separation, but presented the appearance of a compressed mass of bone.

I had occurring in my practice, a few months past, another similar malformed fœtus, but was not permitted to make the necessary dissection to ascertain the pathology of the malformation. I refer to it from the fact that the mother had, during the third month of gestation, intermittent fever and diarrhea, and, from my observation, disease in the mother during the latter part of embryonic, or the first part of fœtal existence, arrests in some way the development of the ossific centres. Hence we have, as the result, a want of development, and arrested growth, or fusion of bones, which produces these malformations, and often results in terrible monstrosities.

These malformed heads are often attributed to a fright of the mother from some such animal as a toad or monkey of which they may have some little resemblance; but in the cases coming under my observation, where fright was claimed as the cause, the fright did not occur until the latter months of gestation; but we know that from the absence of bones and the arrested development of parts, that disease must necessarily have existed two, three, or four months previous to the fright.

Where the malformations of the fœtus are not hereditary, I think we can trace the cause, in a large number of cases, to disease existing in the mother during the early months of gestation. No doubt that some may be due to disease existing in the fœtus. As there was disease existing in the mother, of the three cases I have given, during the early months of gestation, therefore I infer that these malformations were due, or caused by, the maternal sickness. Rokitansky says, in his work on Pathological Anatomy, " All anomalies of Organization, involving any anatomical change, manifest themselves as deviations in the quantity or quality of organic creation, or as mechanical separation of continuity. They are reducible to irregular number, irregular size, form, position, connection, color, consistence, continuity, texture, and contents. They relate to the physical properties of the body, or of its organs, but may be depending on chemical properties of its fluids. The said anomalies being simple alterations of the normal being of its parts, appear as abnormal conditions. No formation is incapable of becoming diseased in one or more ways, several anomalies co-existing in an organ commonly stand to each other in the relation of cause and effect. Thus, deviations in texture very frequently determine deviations in size or form; and these again deviations in position. Deviations in position give rise to anomalies of volume and texture. The seat of general disease is referred to the blood. They appear as anomalies of admixture or crasis, either primary or secondary. Change of texture may be the localization of general disease, or local disease may produce a blood crasis. Local disease may exist independent of the general, as in simple local inflammation, especially of mechanical cause, exemplified in curableness by topical applications, extirpation, etc. Local disease may extend beyond its original seat in various ways. Very dissimilar anomalies may co-exist in one individual. With reference to the period during which anomalies originate, we have to distinguish two distinct classes; the congenital, or those which occur before birth, and the acquired, or those which occur after birth."

Congenital malformations are deviations of the organism, or of an organ, in its primary development, occurring at an early period of embryonic life, or before mature fœtal existence. Malformations, when harmless, are termed lusus naturæ; variation, defect, etc., when more marked deformity; when excessive, misbirth, monstrosity, monster.

Despite the rapid progress made in pathology the *genesis* of malformation is still veiled in much obscurity. There are two opinions of physiologists at present. According to one the malformation is referable to the germ as a primitive malformation. The other opinion is that some influences affect the germ in the progress of development. The former opinion resolves itself into that of the ovists and that of the spermotists, one believing it depends on malformation in the ovum, the other in the spermatozoa, or, as " mother gossip " will have it, the *fault* of the wife or fault of the husband. Where the same malformations are repeated it would lead to the belief that it originates in the germ or sperm, but a vast number originate during development of embryo. There are several hypotheses as to the origin. The first, oldest, and most popular, attributes the malformation to sudden and forcible impression wrought on the mother. Rokitansky affirms this doctrine as true from the many instances in which the mother, frightened at various animals, and the fœtus bear resemblance to those objects, such as an amputated arm, monkey, toad, etc. etc.

A second doctrine derives malformations from external mechanical influences, such as a blow, thrust, a fall, etc., suffered by the mother. Obstriction of ovum through the Fallopian tubes, and its growth in the womb; excess or deficiency of liquor amnii; restriction of space of fœtus; formation of false membranes in cavity of the amnion.

A third opinion assigns, as the cause of malformations, disease of the fœtus. Disease arrests development with respect to growth, shape, position, and texture, or cause their destruction. Inflammation and its consequences may produce such results. Also dropsy will prevent union or closure, and produce disjunction or fissure. The conditions of encephalocele, of hemicephalus, of anencephalus and of spina bifida, being obviously due to dropsy, are beyond the pale of arrested formation. So also some anomalies of the viscera and malformations of the heart are obviously the result of inflammation of those parts.

A fourth proposition, .and endorsed by Wolff, Tiedman, and Meckel, sets forth that most malformations represent certain stages of the development of the embryo, and of its organs, at which stages formation has stopped short, or from which ulterior development has ceased to follow the normal type.

That malformation is therefore essentially an arrest of development is correct. This theory does not explain the cause, which may be from germ, from embryo, or from mechanical influence or mental emotion.

Meckel has collected numerous examples of the hereditary nature of malformations, showing the intrinsic and inherent laws of generation and development.

It will not be uninteresting to consider the laws which nature observes in the production of malformations. We may have malformations of every organ or member of the body.

According to Rokitansky the worst malformation is never so anomalous as not to bear the general characters of animal life, and the external semblance of the particular class of animals to which it belongs. Even an individual organ never departs from its normal character so completely but that, amid even the greatest disfigurement, its character can not be cognizable.

Deviations from the normal are, then, confined within certain limits in reference also to position. Although that which should lie on the right may appear on the left, and the converse, the abdominal organs occupy the thorax, and the thorax the abdomen, the brain has never yet been found in the chest or abdomen, nor the kidneys within the skull.

The natural history of development reveals the cause; different organs and systems being developed out of different layers of the germ, those pertaining to the same layer may err as to their locality, but in no instance will an organ pertaining to the animal become evolved out of the vegetative layer of the germ, or the converse. This is the law of locality. To this we may add, that conjunctions between certain organs never occur as aorta and intestines, but homogenous or kindred parts do.

The excessive development of one part determines the imperfect or retarding of another, and the converse, the law of compensation. Not every organ or part is in an equal measure obnoxious to malformation. It is more rare in organs supplied by cerebro-spinal nerves than in those supplied by sympathetic; the vascular most liable of all.

Certain malformations affect certain organs. Thus, it is an admitted fact that formations resulting from the vegetative and vascular layer of the germ seldom multiply compared with those from the animal layer. Instances of multiplied heart, lungs, intestinal canal, and generative organs, are far more rare than of multiplied head, organs of sense, extremities, etc. While certain malformations are about equally frequent in both halves of the body, certain others affect by preference the one or other side of the upper or nether extremity.

Cleft lip and cleft palate are commonly found on the right side. Malformations from superfluity are more common of upper extremeties. Anomalous bloodvessels oftener in the upper part of the body.

Female malformations are more frequent than male.

SOCIAL STATISTICS.

By J. M. TONER, M. D. Washington, D. C.

A law of nature, almost uniform throughout the world, produces a greater number of male than female births. The proportion of excess ranges in different countries and at different periods, from 1 to 12 in the 100. The rate of excess in the United States is about 6 in the 100. Among the colored race this inequality is reversed, the female births being in excess.

The excess of males does not remain constant and uniform through life. There are more females of twenty years than there are males of the same age; and again between the ages of eighty and one hundred there are more females than males living of the same age. It appears that the excess of males in the United States was, in

1790	58.786	1830	184,018
1800	114,363	1840	315,373
1810	113,138	1850	499,736
1820	128,328	1860	328,624

During the last thirty years the immigration from Great Britain alone was very great. It was in the following years:

1830 to 1840	308,247
1840 to 1850	1,095,556
1850 to 1860	1,495,243

In this connection another fact is interesting. Owing chiefly to westward emigration there was, in 1860, at the commencement of the war, the following excess of females over males in the States named:

New Hampshire	6,441
Massachusetts	37,640
Rhode Island	6,354

Connecticut	8,159
New York	13,671
New Jersey	927
Maryland	16,690
District of Columbia	4,082

No wonder these States had much greater difficulty in filling their quotas of soldiers during the war than those States where the male population preponderated. The statistics of this country are entirely inadequate to show what proportion of the population of a marriageable age are living in wedlock. But that there is a decline in the marriage rate is evident to any person who will reflect for a moment upon the subject. The statistics of some States and several local statistics go to show this. Dr. Snow, in 1868, gave the percentage of births in the City of Providence, R. I., for thirteen years at 39.29 for American parents, and for foreign parents in the same city 51.87. This is corroborative of the opinions expressed by various writers, that the native stock is far less fruitful than the foreign-born residents of our country. I go so far as to assert that the foreign element breeds more than double as many children as the strictly American.

From the United States census reports, I find indubitable evidence of a gradual decline in the proportion of children under fifteen to the number of women between fifteen and fifty years of age in this country now, from what there was in former years. The early family records of the Eastern States show that every family averaged about eight children. From the best information of the present day, it seems that in the families of the native population in those States, they do not exceed three.

The evidence of the decadence of the birth rate of the American people is made very apparent by a diagram which gives the number of males between the ages of 15 and 50, and also the females of the same age, with the children of each sex under 15 separately, in the different States and Territories at each decade. While it shows in many instances a rapid increase of population, it also shows plainly the steady falling off in the proportion of children to males and females of the nubile age. The factors which enter into so remarkable a limitation of the population are as follows:

The decline of the marriage rate.

Frequent divorces.

Infanticide or feticide.

Resolutions not to have children.

Reluctance to rear families.

The birth rate for the colored race has also been declining, though less rapidly than that of the whites. In 1800 it was one in thirty seven, to one in twenty-two in 1860. The question of the admixture of races in the United States will in the future attract the special attention of the scientist and statesman, as the spirit of the times and recent legislation seem to encourage, or at least remove all barriers to the freest amalgamation. Of the whole colored class in the United States returned in the census of 1850, one-ninth was mulatto; and in 1860, one-eighth was returned as mulatto. Of the free colored 36 per cent was returned as mulatto. It is probable that the census of 1870 will show a still larger percentage of increase of this class.

That there are natural laws governing death rates in every locality, and variable in that influence on different sexes, seems to me probable. I have constructed a diagram from the census of 1860. showing the proportion of deaths of one sex over the other at particular ages. The excessive mortality among children, as exaibited by this diagram, suggests that they are either born with exceedingly feeble constitutions, or that there is something radically wrong in the present mode of rearing them. This diagram also shows a fact that I am unable to assign any satisfactury reason for. That is, the great excess of male over female deaths under one year, and indeed during the entire infantile period under five years of age. According to this showing, the excess of male deaths under one year is more than treble the proportion of the estimated excess of male births reported for the United States. Of the 393,606 deaths recorded as occurring in the United States for the year ending June 1, 1860, 168.852 (nearly one-half of the whole mortality) as recorded, died under five years of age; and nearly one fourth of the whole number of deaths occurred under one year of age. In Boston, in 1870, the deaths of children under five years of age reached 43 per cent. of the whole mortality. A writer in the *Boston Medical and Surgical Journal* for August, 1871, gives the following percentage of deaths of children under one year of age to the whole number of deaths in the following cities:

Baltimore	28.90	New York	20.42
Boston	27.00	Philadelphia	24.85
Brooklyn	25.25	Richmond	25.50
San Francisco	21.81	Washington City	28.30

It is a noticeable fact that more deaths occur in some months of the year than in others, and also that more females die in certain months than males. I have constructed diagrams showing the excess of male or female deaths in each month, in each State, for the year ending June 1, 1860; also a diagram which shows the proportion of male to female deaths in the several months of the year. From these diagrams it is seen that the two months in which the greatest number of deaths take place among males are March and May. The same is true of females. The two months in which the lowest mortality prevails among males are June and November; and the lowest for females are November and December. The same facts are shown in the mortality returns in the census of 1870, except that the lowest mortality both for males and females is registered for June and November.

THE RELATION BETWEEN THE DEVELOPMENT OF THE MOUTH AND TEETH TO SYSTEMIC AND MENTAL DEVELOPMENT.

By Dental Cosmos.

An exceedingly interesting and valuable paper, presented before the Odontological Society of Great Britain, by Dr. Langdon Down, is published in the transactions of that society, with the discussion which followed.

Dr. Down having become convinced, in his study of the mental affections of childhood and youth, that the accompanying physical deviations were as interesting and important as the psychical, especially in cases having a congenital origin or proclivity, made a careful investigation into the bodily condition of nearly a thousand feeble-minded youth, directing especial attention to the conditions of the mouth and teeth, with the view of determining if there were any visible signs of mental disturbance. The conclusion to which he arrived was that, in the great majority of instances, he was able to indicate the period at which the depressed condition commenced, from a pronounced deviation from a normal condition of the mouth and its appendages, where the mental weakness was congenital, especially where it originated at an early period of embryonic life.

Dr. Down calls attention to the following conditions of the mouth associated with mental defect: A marked postponement in the evolution of the deciduous teeth; irregular development of them as to sequence; inferior structure and stunted growth; more or less postponement in the evolution of the permanent teeth, and irregularity in the sequence of their development; a crowded condition and other abnormities of arrangement, such as an undue prominence of the canines or incisors; a want of continuity of the enamel, and defective structure leading to premature decay; an unusual thickness of the lips, especially of the lower; marked striations and transverse fissures; deficiency of muscular power, and prehensile function; extreme liability of the mucous membrane to inflammation and ulceration; inordinate length and size of the tongue; absence of muscular tonicity; corrugations of its surface and hypertrophy of the papillæ; a markedly diminished width between the posterior bicuspids; an inordinate vaulting of the palate,—not relative to the diminished width, but absolute (the exceptions to this were some few cases of macrocephalic idiots, who had inordinately large crania, depending on hypertrophy of the brain or chronic hydrocephalus, —in which cases the palates were widely in excess of the normal width); a frequent deficiency in the posterior part of the hard palate, so that the soft palate hangs down abnormally.

Mr. Oakly Coles confirmed to a great extent the observations of Dr. Down.

Mr. Turner had observed that the teeth of imbeciles were unusually large.

Mr. Keeling had noticed a gradual but very marked deterioration of the palates and teeth in one family from a grandfather to an imbecile child.

Mr. Sercombe recalled the condition of one of the oldest families in the realm, in whom every branch of the family had remarkably high V-shaped palates, and at least two members of the family had been in confinement.

Dr. Down, in reply to a question of Mr. Tomes, as to how the peculiarities of the palate noted by him were observable at birth, said that the V-shaped mouth was met with at the first period of dentition in congenital diseases, and added a confirmation of

Mr. Sercombe's observation as to gradual deterioration shown by the aristocratic mouth and the dying out of the race.

The views expressed by Dr. Down, so far as they related to the narrow arch and vaulted palate as associated with mental defect of congenital origin, are in exact accordance with opinions which the writer had long entertained and frequently expressed —opinions originating, probably, from observations of the mouths of a family most of whose members were considered as lacking in mental powers: one of whom—the most markedly deficient— presenting in extreme the peculiar mouth under consideration, which characterized to a greater or less extent the entire family.

To investigate the facts, more especially in reference to the other deviations from normal conditions, we recently sought and obtained, from the gentlemanly superintendent (Dr. J. N. Kerlin) of the "Pennsylvania Training School for Feeble-minded Children," an invitation to spend a day at that institution. In company with an esteemed dental friend, who took a deep interest in the problems presented, but who had formed the opinion that the characteristic mouth of idiots was abnormally flat and broad, we devoted the day to an examination of the dental and other peculiarities of the inmates, numbering about one-hundred and eighty.

The first three cases which presented were, by a singular coincidence, so strongly confirmative of Dr. Down's position in reference to the narrow and deep arch, that there was corresponding assurance on the part of one of the examiners, and distrust on the part of the other, as to the correctness of previously-formed opinions. The next case was the exact reverse, a broad, flat mouth; the evidence being strongly in favor of the congenital origin of the mental defect, which was decidedly pronounced. To these succeeded a series of cases which were absolutely free from any noteworthy peculiarity of the oral cavity. Among the balance we found three more marked cases of narrow and vaulting arches; but many, where the deviation, if any, from normal condition, was in the direction of breadth and flatness rather than the reverse. There were two cases of V-shaped upper maxillary; two of disproportionate size of lower jaw; several of *unusually* broad and flat arches; one case of hanging and one of cleft palate; and several cases of incomplete dentition,—a missing lateral or canine. We could not determine any special deviation as to time or sequence in dentition, and were forced to the conclusion that, considering the inattention to their teeth, as to everything else connected with the care of their persons, the teeth stood the test of neglect remarkably well.

In the mouths of some of the inmates—especially those whose mental development was little above zero—there were teeth which, for size, regularity, density, and perfection of form, would answer as models. There were also teeth which were faulty in every respect and relation; but, on the whole, we had to admit they were about an average lot,—neither better nor worse than those of the same number of similarly-neglected people of ordinary intelligence.

There is one fact apparent to the most superficial observer,—the rapidity with which these poor creatures grow physiologically old. The evidences of senility are noticeable in every organ and function: in premature baldness and gray hair; in dullness of hearing and dimness of vision; in the wrinkled skin; the tottering step; the wasted limbs; the receding gums, and absorbed alveolus. So that, in several cases, the man of thirty, by the record, seemed to be on the other side of sixty. Even in these cases, the teeth, which were ready to drop from their sockets, were not unfrequently sound in their structure.

Subsequent examination of the mouths of a number, believed to be congenital idiots, has resulted in finding three more cases of the high and narrow palatal arch; but these were counterbalanced by other cases, where the development was exactly the opposite, and by others where there was no discoverable abnormity; while several marked instances of the mouth described by Dr. Down have been found associated with intelligence of a decided character; one instance, in particular, of excessive height and extreme narrowness,— more marked than any we found among the feeble-minded,— in the case of a very intelligent and successful professional man.

Notwithstanding these apparent contradictions, it seems reasonable that there is a correlation between physical and mental organizations; and the deductions of one who has had such ample opportunities and so extensive an experience as Dr. Down, are not to be set aside by the observations of a day, even if no solution of the problem presented; but it is presumable that the class of imbeciles which came under Dr. Down's inspection differs, as a rule, from the majority of those who are to be found here, in such an institution as the one mentioned.

We suggest, as a reasonable explanation, the probability that the cases of which our opportunities allowed an examination were chiefly the result of accidental, individual causes, occurring during gestation, or inhering only in the immediate progenitor—perhaps in an exceptional condition at the time of impregnation or conception, such as the perversion of function produced by inebriation or other perturbating influences; while Dr. Down's cases were propably examples of continuous enervating and degenerating influences of intermarriage and other depressing causes connected with the life of the aristocracy. These causes being cumulative through successive generations, would doubtless produce a different style of abnormity from that which is the result of individual and accidental causes. That a law of correlation between progressive, mental, and physical development or deterioration exists, there can be no doubt, nor that it can be traced, if we "observingly distill it out;" but problems like these are not definitively settled except by the concurrent testimony of various observers.

ERYSIPELAS IN CHILDHOOD.

Erysipelas, a superficial inflammation of the skin essentially spreading, is often met with in children and the new-born.

Causes.—These are either general or local, as the result of operations, of external injuries, wounds, hurts, vaccinations, simple excoriations, blisters, inflammation of the umbilicus, eczema of the hairy scalp, erosions of the genital organs, nates, etc. In the new-born, want of care is the principal cause of erysipelas, a serious affection at that age.

Symptoms.—A redness of the skin of greater or less intensity, often circumscribed, will be noticed, which disappears on pressure, and returns afterwards. This redness is more or less painful, and sometimes indolent. Very often these local symptoms are accompanied with swelling of the neighboring ganglions, and of the lymphatic vessels of the affected region, in the form of reddish lines starting from the erysipelas, and directed toward the ganglions. Erysipelas is sometimes limited, and this is more appreciable to the touch than sight, and there is a very feeble ring forming the circumscribing boundary. When the erysipelas is seated in the eyelids, in the scrotum, or in the vulva, it is accompanied with infiltration of the subcutaneous cellular tissue. All these symptoms are preceded by chills, fever, and general disturbance; in some children there is even precursory delirium with vomiting. The symptoms of this disease gradually increase in intensity: there is heat of skin, fever, and great thirst, and besides, the skin being distended, the epidermis is modified, becoming elevated with the formation of vesicles full of serum; generally the erysipelas terminates by resolution, rarely by suppuration or gangrene.

This affection is sometimes epidemic, and even contagious, according to the opinion of the English surgeons, Arnott, Gibson, Lauveau, and of the French physicians, Alibert, Rayer, Chomel, and Costallat. We have not had occasion to establish its contagious character at the Hopital des Enfants; nor have we had any more reason to believe in its positively epidemic character in our surgical wards at this hospital. This partly explains the more common success of operations in childhood.

Diagnosis.—This is easy, and to any one who has seen measles, scarlet fever, or urticaria in children, no confusion can exist in the diagnosis between these diseases and erysipelas. Erythema might be confounded with it, but this affection is free from tumefaction and pain, and is, so to speak, fugacious, and usually unaccompanied with general symptoms.

Prognosis.—As a general rule, this is as grave in children as in adults. Nevertheless, if we refer to our own experience, we will say that this disease frequently follows a course more or less gradual, lasting ten or twelve days, and being cured without treatment by resolution. The redness, heat, and swelling diminish, and desquamation occurs; but this favorable prognosis is not exempt from exceptions, and should be especially modified for erysipelas in the new-born, which we will separately describe. Erysipelas should be considered as of a very grave character when it is not purely local, and is conplicated with purulent absorption, characterized by prolongation of the general symptoms; chills, fever, vomiting, with rapid transition of the redness from one point to another, or when the disease is ambulant, as it is called. It is also grave when complicated with phlegmon, or inflammation of the subcutaneous and deep cellular tissue.

The treatment may be divided into general and local.

Local Treatment.—We do not agree with some authors, that local treatment is useless. If, in many cases in which the erysipelas arises from some general influence, we should abstain from local remedies, it is not the same thing in regard to the form of the disease arising from traumatic causes. When the erysipelas is due to a general cause, the treatment may be confined either to lotions more or less often repeated, with infusion of elder leaves or bran-water, innunction with lard, or, better still (for we are not at all partial to washes, especially those that are emollient and warm) powdering the affected part with potato starch or rice flour. In erysipelas occurring as the result of a wound, a slight hurt, or an operation, if there is intense fever, very great heat, and a tendency to the extension of the disease, it has appeared to us that in some cases the innunction with mercurial ointment has succeeded, and the ointment of the sulphate of iron has given us some good results. Following the example of Dupuytren in certain ambulant cases attended with fever, delirium, etc., a blister placed in the centre of the part affected has put an end to all the symptoms, even in very young children. Having often employed these local remedies, I am satisfied that leeches over the lymphatic ganglions above the seat of mischief are sometimes very useful, but the application of collodion especially, according to the formula of Robert Latour, has given us in children the best results in traumatic cases. As for leeches, if there be heat and fever, we follow the example of Blandin in traumatic erysipelas, and apply them over the ganglions of the axilla for an erysipelas of the arm or forearm, if the ganglions are tumefied and painful; and over the region of the groin for erysipelas of the lower extremity.

General Treatment.—The indication always is, in erysipelas from general causes, to prescribe purgatives, emetics, diluent and laxative drinks, whey, lemonade, and herb broths, which are useful, according to the nature of the case. But, after operations, when we fear the occurrence of purulent absorption, the alcoholic tincture of aconite, in appropriate doses in a julep, should be prescribed for our young patients, and repeated each day. Cinchona in coffee, given in the dose of fifteen to thirty grains of the soft extract of cinchona in black coffee, once daily, has appeared to us to be very useful in cases of purulent absorption, even in very young children.

Erysipelas of the New-born requires separate mention. It is observed within a few days after birth, and may be fixed or wandering, like that met with at all other periods of life; but its characteristic feature is, that it becomes developed in the earliest infancy, and has its seat most frequently around the umbilicus or about the genital organs, on the circumference of the anus or the nates.

Causes.—The smallest excoriation may be the principal cause of it. Cracks of the thighs or the scrotum, and frequently the inflammation that accompanies the descent of the umbilical cord, may produce the disease, and vaccine pustules may be its point of departure. Sometimes there is an epidemic cause, as is seen from time to time in lying-in hospitals when there exist epidemics of puerperal fever. The cause may also be found in the bad conditions under which children of the laboring classes live.

Symptoms.—As a general rule, there are few prodromic symptoms, although sometimes the infant has fever, vomiting, convulsions, and jaundice. The coloration of the skin now declares itself, and at one of the points indicated there is heat, with restlessness, insomnia, and continuous frequency of the pulse; the redness, at first of slight extent, progresses, becomes painful and more or less diffused, sometimes taking the character of erysipelas, and overrunning all parts of the body. There is always more or less tumefaction, with infiltration of the subcutaneous cellular tissue. If the disease terminates by resolution, the symptoms referred to gradually diminish; but, on the contrary, and unfortunately, the child very often becomes enfeebled, and refuses to take the breast, diarrhea and vomiting take place, and the affected part becomes of a more intense red, and even the skin becomes gangrenous. When the sloughs become detached, the wounds resulting should be dressed with powder rather than with cerate, and the suppuration may only cease very slowly. We frequently notice also symptoms of peritonitis, and at the autopsy we discover pus in the spaces of the cellular tissue of the walls of the abdomen, snd also false membranes on the intestines, and pus in the abdominal cavity.

Prognosis.—This disease is very grave, and often mortal. The chances of saving children are so much greater in proportion to their age; but nearly all those only a few days old are carried off, no matter what may be done for them.

Treatment.—Internally we may prescribe laxatives, or calomel in fractional doses, and enemas if there should be constipation. We should not stop completely the milk of the nurse, if it is of the proper quality. We have not adopted the suggertion of English writers, and given two drops of the tincture of the chloride of iron every two hours in sugared water. Externally we may employ a few body baths of bran-water of short duration, and, as a general rule, few or no cataplasms; but what has succeeded best in our hands, is powder of potato or rice starch, but especially the application of elastic collodion repeated several days in succession, graduated in quantities according to the extent of surface involved; and we must, so to speak, pursue the disease with the collodion, changing very frequently the linen of our little patient, so that it may not become too moist. Every time that it is changed we should reapply the collodion. When the skin becomes gangrenous, applications of digestives may be sometimes useful to facilitate ths separation of the sloughs; and this being effected, we must use simple dressings, still preferring starch mixed with tonic powders, renewed frequently and carefully. By such means we avoid fresh attacks of erysipelas, which are too often provoked by the fat substances, preparations of lard, of glycerine, etc., suggested in these cases. We have had some success, but very rarely, in the use of dressings with the powders only.—*The Medical News and Library.*

EPIDEMIC CEREBRO-SPINAL MENINGITIS.

[Compiled for the MEDICAL NEWS.]

An acute, epidemic disease, characterized by profound disturbance of the central nervous system, indicated, at the outset, chiefly by shivering, intense headache, or vertigo, or both, and persistent vomiting; subsequently by delirium, often violent, alternating with somnolence, or a state of apathy or stupor; an acutely painful condition with spasm—sometimes tetanoid—of certain groups of muscles, especially the posterior muscles of the neck, occasioning retraction of the head; and an increased sensitiveness of the surface of the body. Throughout the disease, there is a marked depression of the vital powers; not unfrequently collapse; and in its course an eruption of vesicles-petechiæ, or purpuric spots, or mottling of the skin is apt to occur. If the disease tends to recovery, the symptoms gradually subside without any critical phenomena, and convalescence is protracted; if to a fatal termination, death is almost invariably preceded by coma. After death the enveloping membranes of the brain and spinal cord are found in a morbid state, of which the most noticeable signs are engorgement of the blood-vessels, usually excessive, and an effusion of sero-purulent matter into the meshes of the pia mater, and beneath the arachnoid.

It is observed in three principal forms: (*Simple*) in which the symptoms indicative of disorder of the numerous centres predominate throughout the whole course of the disease; (*Fulminant*) in which the depressed state of the vital powers, with profound blood change,—as shown by hemorrhage of various forms into the cutis—characterize the disease; and (*Purpuric*) in which the cerebro-spinal symptoms, and the symptoms which mark blood-change (*petechiæ*, *purpuræ*, *vibices*, *etc.*), and flagging of the vital powers, occur together. The proportion in which the three forms of the disease are manifested varies considerably in different epidemics. In every outbreak, cases are observed which link, by insensible gradations, one form with another; while in other, and rarer cases, the characteristic symptoms of the three forms are merged together.

It has been regarded by some as a form of simple acute cerebro-spinal meningitis; but its rapid course and greater severity, and its clinical history, clearly show that it is more than a simple meningitis. The whole of the nervous system is gravely implicated from the first, so that it kills, sometimes, at an early period, leaving no evidence of local structural change. On the other hand, there seems to be no constant relation between the severity and duration of the illness and the extent of the lesions seen after death. Again, there are not a few who regard the disease as a variety merely of typhus fever; and cases are met with, particularly when cerebro-spinal meningitis and typhus prevail together, which favor this view. But it is believed that the suddenness of the invasion, the rapid course, the absence of the mulberry rash of typhus, the early appearance of the purpuric eruption or hæmic spots, are sufficient to distinguish epidemic cerebro spinal meningitis from typhus fever. Each seems due to some specific poison, which some believe to be of malarious origin; others, again, of the nature of influenza, or of typhoid pneumonia. The exact nature of the disease seems, therefore, to be still undetermined; and pathologists have rather stated what it is *not* than what it is.

Dr. J. J. Woodward, speaking of cerebro-spinal meningitis as observed in our armies during the rebellion, says: "There were at least two classes of cases brought under the observation of the medical department of the army. In the first the autopsy disclosed grave anatomical lesion of the cerebro spinal axis, accumulation of serum, sero-pus, pus or tough yellow lymph, especially in the ventricles about the base of the brain and in the upper part of the spinal canal. In the second class of cases, no perceptible anatomical lesion in the cerebro-spinal axis was observable. The two groups of cases rest upon equally reliable evidence, and are not to be disposed of on the supposition that the latter represents merely an early stage of the former, since it is to be remarked that *both* anatomical conditions appear to have been found indifferently in protracted cases as well as those which proved suddenly fatal."

The blood is usually very dark colored and fluid, even in the briefest cases; but in some instances firm fibrinous clots have been found in the heart after death. The coincident lesions are: congestion and edema of the lungs; pleural, pericardial, and articular sero-purulent effusions; and, occasionally, enlargement of the glands of Brunner and of Peyer, without ulceration.

Epidemics of this disease are more frequent in winter than in summer, and usually disappear as warm weather begins. But there are exceptions to this, which contrast very remarkably with most epidemic diseases. Among the different ages, childhood has the greatest quota of cases and deaths. Persons of middle age are often attacked also, while the aged are rarely affected. Unfavorable hygienic influences of all kinds, among which are crowding of barracks, dwellings, etc., favor the outbreak of the disease. Persons exposed to these influences are in greater danger, at times of epidemics, than those who live under more favorable circumstances.—*Niemeyer.*

Headache is almost always constant, and it is remarkable for its early and persistent severity. At the outset it is not localized in any particular part of the head. It may be referred to the forehead, the sides, the vertex, or the occiput; or it may be general. Later in the disease, the occiput is, perhaps, most commonly the seat of pain. The intensity of the headache is, as a rule, peculiar. The patients describe the pain as sharp, lancinating, stabbing, plunging, tensive, throbbing, boring, or crushing. It is so intolerable as to elicit groans and cries from the sufferer; often even during delirium or stupor, the exclamations, the contraction of the forehead, and the manner in which the hands are moved towards the head, show that the pain continues. In young children this state closely resembles that which is so significant of tubercular meningitis. The headache may cease when the disease has become fully developed, or, as is probably more common, it may persist throughout the whole course of the malady so long as consciousness remains. Occasionally, indeed, when recovery takes place, it will continue far into the period of convalescence.

Usually for the first days of the disease, and in some cases during its whole course, the patients are very sensitive to any rough handling; their restlessness, groaning, and complaints are increased when they are turned over in bed occasionally, even if they be percussed. Later, we often see no reaction even when the skin is greatly irritated; but in such cases, when the patients are in a state of stupor, there is cerebral anæsthesia. Far more rarely, there is peripheral anæsthesia, during which, while the patient is quite conscious, he feels irritation of the skin very little or not at all. This symptom apparently depends on loss of excitability of the posterior roots from inflammation. During the recent epidemic in the United States, cutaneous hyperæsthesia is said to have been a characteristic symptom of the disease in its fully developed state. During the outbreak in the lower Vistula, an increase in cutaneous sensitiveness was also observed very commonly, but it was not regarded by Dr. Burdon Sanderson as a characteristic symptom, but a mere consequence or interlude of pain.

Delirium is rarely absent. It varies much in character, and may occur at any period of the seizure. It may be quiet or violent, transitory or more or less persistent. It sometimes, but rarely, forms one of the symptoms of invasion, when its access is sudden and its character acute. It may supervene with violence after the malady has continued for several hours or two or three days. In the acute form of delirium, the patient is very noisy, and often so violent as to require restraint.

In not a few protracted cases, delirium is followed by a prolonged state of stupor, the patient lying completely indifferent to external impressions. In six cases observed by Dr. Sanderson, in which there had been violent delirium at the outset, this state lasted from one week to five weeks, the mean duration of the several cases being nineteen days. The observer remarks, however, that as four of the cases emerged from their stupor in a state of complete deafness, there was much difficulty in limiting accurately the period of unconsciousness. Sometimes the state of stupor supervenes without the intervention of violent delirium. Coma occurs in nearly all fatal cases, and is, indeed, generally the forerunner of death.

The heart-beats and the pulse are often quick, feeble, and tumultuous, though sometimes weak and slow; and well-marked cardiac blood murmurs have been heard. In six adult cases, Burdon Sanderson found the pulse to vary from 56 to 98, the average beats being 85. In 98 cases observed by Githens, the pulse varied from the natural standard to 150 per minute. In all it was very weak, with a dicrotic tendency, sometimes entirely imperceptible in the radial artery, and always interrupted by slight pressure. There would seem to be direct correlation between the frequency of the pulse and the body temperature; the latter, according to the German observers, rarely rising above 100 deg. F. The highest temperature in different cases noted by Githens varied between 100 deg. and 105 deg. F.; while in two it was below 100 deg.

In regard to spasm in this disease: Sufficient care has not always been taken to discriminate between apparent and actual spasm in this disease. Tourdes, in 1843, showed that the retraction of the head and curvature of the spine did not in all cases arise from a spasmodic contraction of the muscles, but that the position was not rarely voluntarily or instinctively assumed by the patient as most conducive to the relief of the spinal pain. Dr. Sanderson confirmed this observation of Tourdes, so far as retraction of the head was concerned, in 1865. In the cases then reported, there was not any tension of the muscles except such as arose from this resistance; no tightness was felt so long as they were at rest. It was not till the neck was completely extended that the muscles became hard, and even then the hardness was not for a moment comparable to that which is felt in tetanus.

There can be no doubt, however, that spasm is a frequent accompaniment of epidemic cerebro-spinal meningitis. In the clonic form it is witnessed in some cases as transitory contractions of the facial muscles, and cramps of the extremities, Tonic spasm of the muscles of the face, jaws, (trismus), and gullet, and of the limbs and trunk, may also occur, giving rise to true opisthotonos, emprosthotonos, or general tetanic rigidity of the trunk and limbs.

Niemeyer thus describes the symptoms and course of the disease: " Only in rare cases is the outbreak of the disease preceded by a premonitory stage, characterized by slight headache and pain in the back. Usually the scene opens with an unexpected chill of variable duration, which is soon accompanied by severe headache, and in most cases by vomiting. The headache rapidly becomes very severe, the sufferer grows very restless, tosses about constantly, the pupils are contracted, the intellect remains clear. The pulse is 80–100, the bodily temperature moderate, the respirations increase to 30–40 per minute. Even at the end of the first or second day, rarely later, we notice that the head is drawn backward. At this time there is often a herpetic eruption near the mouth, on the cheeks, eyelids, ears, and occasionally, on the extremities. The complaints about severe headache continue; the pain extends from the head to the nape of the neck and the back. The restlessness becomes excessive, the ideas confused, the pupils remain contracted, the belly is sunken, and the bowels are constipated. The pulse and respiration become more frequent, occasionally the pulse is over 120, and the respiration over 40 per minute; the bodily temperature still remains proportionally low, or rises to 103 deg. or over. The third or fourth day of the disease, the tetanic contractions of the muscles of the neck and back become more evident, and are occasionally accompanied by trismus; there is excessive opisthotonos; consciousness is lost, but the patient still tosses about in bed; the pupils remain contracted; constipation continues; the belly is sunken; urine is passed involuntarily or else the bladder becomes distended, and must be evacuated with the catheter. The now unconscious patient falls into deep stupor; the moaning respiration is accompanied by moist rales, and death occurs with the symptoms of acute edema of the lungs.

" In some particularly severe cases, the above symptoms develop far more rapidly; consciousness is lost even during the first day, while severe tetanic spasms of muscles of the neck and back draw the head far backward. Death may occur even on the first or second day, when the disease is very malignant.

"Lastly, in some few cases, the disease runs a still more rapid course, and causes death in a few hours, from general paralysis, occasionally even without the appearance of the most characteristic tetanic symptoms.

"But the disease does not by any means always terminate fatally when it has commenced and run its course for the first few days in the manner above described. As favorable signs, we usually first notice that there is less jactitation, and the mind becomes clearer, while the complaints of pain in the head and back, and the tetanus of the cervical and dorsal muscles continue, or only slightly decrease. If the improvement progresses, all symptoms of the disease may disappear in a few days, and the patient begin his tedious convalescence."

Treatment.—There is no antidote to the specific poison. The indications are to stay, if possible, the progress of the disorder. A hot bath often gives some relief. When the surface or extremities are cold, friction with turpentine and tincture camphor may be used, or sinapisms put on the arms and legs. A moderate quantity of blood may be drawn by cups, or leeches, applied to the back of the neck, followed by counter-irritation, or a blister. Brandy, ether, or chloroform, in small quantities, may be administered both as stimulants, when indicated, and to allay the nausea and check the vomiting. Two or three large doses of quinia with opium should be given, at proper intervals; or hypodermic injections of morphia about the seat of pain. The bowels ought to be kept free by enemata containing croton oil, turpentine, etc. Nutritious and suitable food must be taken, when possible, at short intervals, and through the night as well as the day.

The bromide of potassium has been given, and it may possibly prove a valuable adjuvant in controlling some of the symptoms, and, as it cannot do harm, merits a fair trial. Inhalations of ether and chloroform have been found by some of the French physicians useful as sedatives. There is much strong testimony in behalf of counter-irritation and blistering along the spine. The actual cautery freely applied to the back, has been followed by great alleviation of the pain and other symptoms. Dr. J. Burdon Sanderson recommends the application of ice-cold to the spine during the first day. Dr. J. Netten Radcliff says: "The application of *cold* to the head and spine, either by means of ice or a freezing mixture in India rubber bags, has furnished by far the most satisfactory results of all direct treatment." If there is much prostration during the local use of cold, the trunk and extremities should be kept warm by cotton-wool, hot sand-bags, or hot-water bottles.

Says Niemeyer: "Whoever tries any proposed plan only on the severest cases will attain negative results by any procedure. The customary treatment of sporadic meningitis, consisting of the energetic use of cold as ice-compresses to the head, the application of leeches behind the ears, and the internal administration of calomel is also advisable in epidemic cerebro-spinal meningitis, as is very evident from its excellent effect in patients attacked by the premonitory symptoms of the disease, severe headache, and pain in the neck, during an epidemic.

"But, according to most observers, this mode of treatment has preserved its reputation even in marked cases of the disease; there is but little opposition to it, and even this is based on its want of success in the severest forms. I have no personal knowledge of the success of morphia when given internally or hypodermically; but Ziemssen says: 'Although we have used morphia frequently, we have never seen any injurious effects from it, but, on the contrary, such a decidedly palliative action that, along with cold, it seems the most indispensable remedy in the treatment of meningitis.' Almost all observers agree that quinine is entirely useless even in decidedly intermittent cases."

Dr. John Chapman, in the *Medical Press and Circular* of 1867, says: "I shall assume, without further discussion, that all excessive muscular contraction is due to excessive energy in those nervous centres which preside over the muscular system. Now, this being so, it is obvious that the only rational way of treating lock-jaw, retraction of the head, and other tetanoid states, as well as convulsions and subsultus tendinum, is by lessening the energy of the nervous centres producing those phenomena. Can we do this? I affirm that we can; and, notwithstanding the difficulty of many thoughtful men in believing it possible, by applying it along the spine, to influence the circulation of the spinal cord at all, and the fact that, up to the present time, this method has, with a few exceptions, been wholly disregarded or unknown. I believe that the time is not far distent when it will be counted on by medical practitioners as one of the most powerful remedial agents at their command for subduing hyperæmia or inflammation of the spinal cord. . . . I have already cited the evidence of Dr. Todd, and I may observe in passing, that he was one of the few physicians who never doubted that the application of ice along the spine acts directly on the spinal cord. . .

In the group of symptoms of inflammation of the spinal cord and its membranes, I have classed, besides those just referred to, *erotic desires*, *priapism*, *subsultus tendinum*, *swelling of the tongue*, *petechiæ*, and *vibices*. It will probably be admitted at once, by each of my readers, that the first three of these disorders are expressions of disorder of the spinal cord, and I shall, therefore, only observe respecting them, that I am assured by experience that they may be treated successfully by the spinal ice-bag, and that, if in cases when subsultus tendinum is present, the physician will apply the bag and watch the results, he will generally be surprised and gratified, not only by the rapidity with which the affected muscles will be soothed in quiescence, but by the generally refreshing and vivifying influence which the ice thus applied exerts."

A NEW SYSTEM FOR DRESSING WOUNDS AND AMPUTATIONS.

By George B. Shattuck.

Messrs. Editors.—Under the impression that it may still be new to many of your readers, I venture to send you a short account of a system for dressing wounds and amputations, introduced not long since by M. Alphonse Guerin, Surgeon at the Hotel Dieu, and which is now being quite generally tried in the hospitals here. The dressing is cotton wool, and its application is based upon the now generally well-known property which cotton wool possesses as a filter of atmospheric germs. Your readers will remember the use made of it in Pasteur's famous experiments in regard to spontaneous generation, and Prof. Tyndall's more recent experiments confirming the same properties. The latter has even proposed that it should be adopted as a respirator to render innocuous the poisoned air of sick rooms.

M. Guerin made his first experiments during the first siege of Paris, at the Military Hospital Saint Martin, and continued them during the second siege with success. He has now the service at the Hotel Dieu, which, from the well-known unhealthiness of its wards, gives him an excellent opportunity to put his system to proof. According to M. Guerin, the dressing should fulfil four objects, viz.: it should act as a filter of the air, excluding organic germs, and consequently preventing putrefaction; it should afford an elastic compression to the limb and an equable temperature, and should allow complete repose to the parts during the process of restoration.

When well applied the dressing does fulfil those demands, and in doing so it seems to be the best, as well as the simplest system of treatment of wounds and amputations with which we are acquainted. To attain these results, M. Guerin's formula is, "*il faut mettre trop d'ouate, et serrer trop fort*," one should put too much cotton wool, and bandage too tightly. In other words, failure is generally the result of putting too little cotton wool, and bandaging too loosely. His measure is that the limb, when bandaged, should have about three times its original size. I have heard of five pounds of cotton wool being applied after an amputation of the leg, but that is more than is usually considered necessary. In a case which I followed, the cotton wool applied, after an amputation of the leg, and which reached to the groin, weighed only 785 grammes, about 1¾ pounds. In this case, the details of which I will give below, the condition of the wound and the character of the discharges upon the 24th day, when the dressing was removed for the first time, were most satisfactory.

In those cases which I have seen, the absence of pain, the entire comfort and good general condition of the patient were remarkable. The bandaging is a point of prime importance. In order to put the cotton in a position to act as a filter, and in order to give the proper compression to the parts, several layers of bandages should be firmly and evenly applied. If the bandage is well adjusted, one can tap with considerable force upon the outside of the dressing without causing any unpleasant sensation to the wound; and a patient can often be up and about with a wound which would otherwise necessitate remaining in bed. The gain, both to the patient and to the attendants, from the fact that a wound or amputation which formerly would have been dressed twice a day now requires but once in three, four, or even six weeks, will readily be perceived. I say even six weeks, for the tendency is to leave the first dressing as long as possible, and some cases are reported in M. Guerin's service where it has been allowed to remain form thirty-five to forty-five days. Of course, the bandages should be carefully watched and readjusted if at all loose. Should the discharge appear to any extent at the surface of the dressing, the latter should, as a rule, be changed. One of the most striking things about the dressing is the very small quantity of discharge which collects, even in the course of several weeks. In the case mentioned as occurring in M. Guyon's service, there had not been more than ℥iij. of pus, including that which had soaked into the dressing, upon its removal after three weeks. The pus generally has a stale but not a putrid smell, and in several cases examined under the microscope gave no evidence of organic germs.

M. Guerin was kind enough to open one of his dressings before me, and pointed to the fact that the inner surface of the cotton wool becomes matted by the perspiration, and so closely adherent to the skin that it is with difficulty removed. In those cases where the dressing has been most successful, he has always found this condition of things. To facilitate it he sometimes applies a solution of gum arabic. M. Guerin takes the precaution never to apply the dressing in the wards, and to use cotton wool freshly opened. The wound is previously bathed with a solution of camphorated alcohol and water, or with some other antiseptic, and in the case of amputations, especial care is given to tying *all* the vessels. After the application of the bandage, one must, of course, give to the patient all the attention which one usually devotes to the wound when exposed to view, and any change in pulse, temperature, or appetite, should be carefully noted. This being down, one can be quite sure of the condition of the wound.

Whatever merit there is in the *application* of this principle is due to M. Guerin. Mr. Lister has made use of cotton wool, but not in the same way, or to the same extent, and has apparently discarded it altogether, as will be seen by referring to a note upon page 619 of vol. v. of the last edition of "Holmes's System of Surgery." His "antiseptic gauge" may be even more antiseptic than the cotton wool; but it cannot have the other advantages claimed by M. Guerin for the cotton wool of affording elastic compression, equable temperature, and a thorough protection to the part, combined with simplicity of application and comparative cheapness. The apparatus of M. Jules Guerin, described in the *Revue des Cours Scientifiques* of Dec. 14th, 1867, also attains an antiseptic result, but lacks the other advantages offered by this system of M. Alphonse Guerin. I would refer your readers to an article, the first part of which has appeared in the *Archives Generales de Medicine* for Dec., 1871, written by M. Hervey, a former Interne at the Hopital de Saint Louis, under M. Guerin.

I append an abstract of a case occurring in the service of Dr. Felix Guyon, at the Hopital Necker, the report of which was kindly furnished me by Mr. T. B. Curtis, Interne. It may be of interest as impartial testimony.

Patient, a carter, æt. 36, strong, healthy man, brought to the hospital Jan. 27th, with a compound, comminuted fracture of tarsus and leg; comminution of the bone, and laceration of soft parts extensive.

Amputation circular at the junction of the third and lower quarters of the leg, with vertical incision upon the internal aspect of the tibia, the latter united by sutures of silver wire. Guerin's bandage applied, about $1\frac{3}{4}$ pounds of cotton wool tightly bandaged as far as the groin; no cotton placed upon the flaps. (This, I would add, is contrary to M. Guerin's practice; he always fills the space between the flaps with a cone of cotton.) From the day of the operation, the patient's general condition was excellent; his appetite was good, he slept well, and there was no pain in the stump, which he brandished with impunity. During the first two days, a slight sanguinolent discharge made its appearance at the top of the bandage, near the buttock, but ceased, the bandage being tightened. A very slight discharge had found its way to the surface of the dressing during the last week that it remained in place. The dressing removed February 20th. Condition upon removal:—The cotton wool found dry, but giving out, as removed, a tolerably strong, sour, disagreeable smell, which did not, however, increase as the stump was approached. Upon arriving at the last layers, the cotton was found matted with pus, partly liquid, partly dry, forming a sort of brownish felt, dry upon the outside, moist near the wound, covering like a cap the end of the stump. This cap, about as large as the hand, was separated from the wound at its centre by a brownish pus which bathed the wound, the quantity of which might be reckoned at ʒi. Around the wound, this cap was closely adherent to the skin. The pus, brownish like *chocolat a la creme*, had a pretty strong, but not putrid, smell. Under the microscope, one found nothing in the discharge except pus cells and an infinite number of fatty granulations; no signs of organic germs. Objective No. 5 of Nachet.

Condition of the wound:—Rosy, neither pale nor red, just sufficient granulations to fill the cone. The extremity of the stump was rounded; the cicatrix will necessarily be central, but the bony extremities were sufficiently covered; no retraction had taken place. The small, vertical incision seemed to have united by first intention. The ligatures, still holding, were left in place. A second dressing was applied similar to the one removed. In this case, the dressings were applied in the ward. The diagram of the pulse and temperature shows that the former never rose above 90, and averaged 75; the maximum of the latter was $38\frac{1}{2}$, Centigrade, and the average $37\frac{3}{4}$. There were, at the same time, in the same ward, two cases of compound, comminuted fracture of the phalanges, the joints being opened. In both cases, the hand was supported by a zinc splint: the one case was dressed with cotton, the other without. The condition of the former has been incomparably better during the treatment.

I should mention the fact that the process of granulation is not always so rapid beneath cotton wool as one is at first led to expect, and it is better not to prolong this treatment beyond a certain point. The immense advantage of the system in time of war is apparent, enabling transportation in many cases where it would otherwise be impossible, and thus, by preventing overcrowding, acting both indirectly as well as directly, as an antiseptic.—*Medical and Surgical Journal.*

CEREBRO-SPINAL MENINGITIS.

By CHARLES W. PACKARD, M. D., New York.

The following cases of Cerebro-Spinal Meningitis have come under my professional care during the past few weeks.

Annie C., aged seven weeks, was taken with vomiting, restlessness, and fever at eleven P. M., on Saturday, February 24th. On the afternoon of the following day an eruption suddenly appeared, and the mother, becoming alarmed, brought the patient to my office.

I found the infant collapsed, with a cool and pallid surface; pulse slow and somewhat irregular; pupils moderately dilated; and I learned that there had been slight diarrhea, but no convulsions. The eruption was roseolous in appearance, and ecchymotic. No diagnosis was arrived at, although it was very evident that some active blood-poison was at work. Diffusible stimulants were at once given, but without avail, the case terminating fatally at one A. M. on the following day, 26 hours after the first symptoms of illness were noticed. Soon after death nearly the whole surface of the body became discolored, and of a hue varying from purple to dark-red. No autopsy.

On the afternoon of the same day, on returning from the funeral of the infant, the parents found that there only remaining child, a healthy boy three years of age, was sick with headache, vomiting, and high fever. It was hoped that these symptoms might depend on the fact that he had not slept the night before, owing to the commotion in the room caused by the preparations for the burial of the infant, and to his having eaten a large amount of indigestible food during the day. There was nothing discoverable in his physical condition that is not constantly met with in the ephemeral fever of children.

On the following morning, February 27th, the mother called to inform me that he had passed a restless and feverish night (I have since learned that he had three undoubted convulsions), but that towards morning his bowels acted freely, when his fever left him and he slept quietly. On waking he seemed so playful and well that the further services of a physician were not considered necessary.

At 4 P. M., twenty-four hours after the inception of the disease, the father came in great haste to say, that after having been lively and apparently well all day, the child had suddenly met with "a change" and appeared to be dying. I found him collapsed and insensible, and apparently near death. The face and forehead were pallid and absolutely cold. Temperature in axilla 101 degrees, pulse 84 and irregular, respiration 40 in the minute. Pupils somewhat dilated and variable. There were slight general convulsions at intervals of a few minutes. No abduction of thumbs or toes, nor rigidity of muscles; no eruption. Free stimulation was at once resorted to, and in the course of half an hour a satisfactory reaction had begun. At this stage of the case I invited my friend Dr. Samuel Whitall to assist me in its observation and treatment. We at once catheterized the patient and obtained a specimen of urine which was normal in color and quantity and contained no albumen.

An eruption of petechial spots now suddenly appeared on the body and extremities, being most abundant on the neck and loins. The spots were of the size of flea-bites, though of darker color, and some where of a linear shape, with fine radii upon one side, like the feathers on a quill.

With returning warmth the nervous excitement became intense. There were frequent shudderings, and short general convulsions, incoherence, with occasional shrill outcries that he was falling. At times the delirium assumed a pleasant character for an instant, and the child would smile and utter short sentences, in an urgent, hurried way, such as "Mikey is a good boy," etc.; there was persistent vomiting, and constant movement of the trunk and extremities. The expression of the face indicated the extreme gravity of the disorder. The brow was corrugated, the eyelids of a dusky red, looking just ready ts become ecchymotic; the nose was pinched; and the upper lip drawn, and of a deathly pallor, in strong contrast to the brighter color of the cheeks. The movements of the body were unconstrained and natural, except that the head was slightly thrown back.

In view of the almost maniacal condition of the patient, it was thought advisable to begin the administration of opium, which was given in increasing doses, beginning with one drop of the tincture every hour; the dose to be increased according to its effects. Hyd. sub. mur. gr. x. was placed upon the tongue. The quieting effect of the opium soon became apparent. The restlessness subsided, and the convulsions became less and less frequent, and in two hours entirely ceased. The pulse became perfectly regular, but rapidly increased in frequency until in a few hours it had reached 160. Respiration 42 in the minute.

There was little change in the general condition of the patient during the next twenty-four hours, the dose of tr. opii having been meanwhile gradually increased to five drops an hour; but at the end of the second day (forty-eight hours from attack) the violent and noisy excitement returned, and with it the vomiting. There was subsultus and floccitation. The pupils were moderately contracted, but sensible to light; slight strabismus. No return of the convulsions. No new spots had appeared, though a part of the eruption was of a darker color than at first. The bowels had acted twice. Urine now slightly albuminous. The patient became comatose two hours before death, which took place sixty-one hours after the attack.

An autopsy was made 30 hours after death, by Dr. Whitall and myself. Cadaveric rigidity well marked. On inspection the depending portions of the body were found slightly discolored, and the eruptions had assumed a darker hue. Upon section the scalp was pale, and no blood followed the knife. Dura mater injected; arachnoid intensely injected and dry, and underneath it an abundant effusion of recent lymph of a gelatinous consistency. This was found most noticeable along the veins of the vertex, the longitudinal fissure, the fissure of Sylvius, and there was also a slight deposit about the optic commissure. The vessels of the medulla were intensely injected, but no exudation had taken place. Cerebral tissue somewhat injected, but of normal consistency. Not more than ʒj. of serum was found in the ventricles. The conditions under which the autopsy was secured rendered it impossible to extend the examination to the spinal cord and its membranes.

The following case occurred during my recent service in St. Luke's Hospiaal. I am indebted to the resident physician, Dr. Geo. D. Bleything, for the subjoined history and careful record of daily temperature.

Annie Frazier, age 19, Eng., married, admitted January 27th, 1872.

One week before admission was troubled with sore throat, pain in the head, and constipation. The day before admission had a severe chill lasting part of the night, and followed by fever and vomiting. On entering the hospital was suffering from severe cephalalgia, and great tenderness and pain in the post cervical region.

Some opisthotonos. There are large patches of herpes about the mouth and on the left hand. The limbs are hyperæsthetic, but not swollen, and there is no impairment of motion. No tenderness in abdomen; no spots on any part of the body. The right eye seems slightly deflected from a right line, and there is ptosis of right lid. The tongue is yellow-coated, and the fauces reddened. Pulse is full and frequent, and bowels costive. No abnormal sounds heard on auscultation. Is not at all emaciated. Temp. 104 degrees. Ordered Sp. Minder., ʒss.; Sol. Magendie, gtt. vj. Jan. 28th.—Slept well last night, but is suffering greatly this morning. The cephalalgia is increased, and tenderness of the muscles in the post-cervical region is very marked. Opisthotonos more deciddd. There is some tenderness of muscles of trunk and limbs, but no paralysis. Water is passed without difficulty; bowels are costive; face is flushed; pulse dichrotic. Temp. 105 degrees. Ordered Tr. aconite rad., gtt. iij.; Sp. Mender., ʒss. every three hours; sherry, beef-tea, broth, and broken ice. Evening: More quiet, continued treatment, and ordered enema. Jan. 29th, symptoms continued with unabated force. Patient was very noisy and somewhat delirious through the night; takes a fair amount of nourishment in fluid and semi-fluid form; calls constantly for ice. Temp. 104 degrees; pulse, 130 and double. Stopped aconite; continued Sp. Mend. and stimulants.

Jan. 30th.—Passed a bad night; was noisy and delirious; applied ice to head, but could not keep it on; vomited a green matter last night and this morning. Temp. 104¾ degrees; ordered Tr. aconite rad., gtt. v.; and to take Quin. sulph., gr. v.; Ac. sulph. dil., gtt. x., bis die; whisky, ʒvj.; sherry stopped; beef-tea, chicken, and oyster broth; egg beaten with sherry; milk. Evening: Temp. 104 degrees; ordered Sp. terebinth., ʒss. in enema, and sinapism to back of neck.

Jan. 31.—Mind is clear, and headache somewhat less; slept part of the night; still complains of the sub-occipital pain, and also of frontal headache. Temp. 103 degrees; took last night Tr. aconite rad., gtt. vij.; Sp. Mend., ʒss. every two hours; stopped this morning and continued quin., etc. Evening: Tem. 102½ degrees; ordered Pulv. ipecac. co., gr. x.

Feb. 1.—Face is flushed, and complains that whisky makes her head worse; to be dimished to ʒiv. daily; quinine with iron. Temp., A. M., 102.2; P. M., 102.2.

Feb. 2.—Bowels have not moved since last enema; tongue is a little brown at centre, and white over surface; no spots or tenderness of abdomen; no muscular tenderness or opisthotonos: has lain on right side almost continually until now; this morning is lying on left side; there is still drooping of right lid, and heavy expression of face; slight impairment of hearing. Ord enema, containing ol. ricini, ℥ss.; Temp. 101 degrees. Evening, not so well; complains of increased headache and cardialgia; coughs, and expectorates a bloody and catarrhal matter, that apparently comes from posterior nares. There is some redness of fauces. Temp., P. M., 104.2. Pulse is full and rapid. Auscultation gives negative results; stopped quin. and ordered sinapisms to epigastrium; to take tr. aconite and sp. Mender. as before.

Feb. 3.—Temp. 102.2. Is much better this morning; stopped aconite; continue stimulants. Evening, increase of fever and headache. Temp. 106.2 degrees; renew aconite, enema to move bowels; sinapisms to feet; ice to head.

February 4.—Temperature, A. M., 103 deg.; P. M., 105
" 5 " " 102.2 " " 105

February	6,—	Temparature,	A. M.,	102	"	"	104.2
"	7	"	"	102	"	"	104.2
"	8	"	"	103.2	"	"	104
"	9	"	"	103.2	"	"	104
"	10	"	"	101.3	"	"	105
"	11	"	"	104	"	"	105
"	12	"	"	101	"	"	104

This morning vomited breakfast, and is coughing and expectorating consistent masses, resembling catarrhal discharges, slightly marked with blood, Fauces no longer reddened, but pallid.

Feb. 13.—Vomited again this morning; other symptoms are unchanged, except that patient had a profuse sweat this morning. Temp., A. M., 103 degrees; P. M., 104 degrees.

February	14.—	Temperature,	A. M.,	102 deg.;	P. M.,	105
"	15	"	"	98	"	105
"	16	"	"	100	"	104
"	17	"	"	101	"	104
"	18	"	"	104	"	104
"	19	"	"	103	"	104
"	20	"	"	98	"	98
"	21	"	"	98	"	98

Convalescence was now fairly established, and the patient left the hospital Feb. 26th apparently well. Her appetite was good, and she slept soundly every night. There was considerable emaciation and general weakness, such as would be expected after so severe an illness, but no perverted sensation or paralysis.

REMARKS.—The diagnosis of this case presented some points of difficulty. In many respects the symptoms resembled those met with in remittent fever occurring in a person of strong hysterical tendencies. Throughout the disease she had a fixed and placid expression of face, and looked as if she would get well. On the other hand, she had only one decided perspiration during her sickness, and quinine in large doses had no effect in checking the exacerbations of fever. For example, on February 15th, the morning temperature had fallen to 98 degrees; twenty grains of quinine were given and retained, and the evening temperature rose to 105 degrees. On the following morning the temperature was 100; the quinine was repeated, and the evening temperature was 104 degrees.

After this no medication was attempted beyond the exhibition of an opiate at night when the patient was very restless or delirious, the opium having been found to act more efficiently than any of the ordinary substitutes.

The quieting effect of opium was still more marked in the case of the boy above reported. Here the tr. opii. was given in five-drop doses every hour, and its effects carefully watched. There is no doubt in my mind that for twenty-four hours it so far steadied the nervous system as to stop the convulsion, and control the irregular action of the pupils and of the heart. Full narcotism was not produced at any time, the pupils being only moderately contracted, and the respiration never less than 30 in a minute.—*The Medical Record.*

CLINICAL REMARKS ON DIABETES.

By Prof. THOS. F. ROCHESTER, M. D., in the Hospital of the Sisters of Charity.

[Reported by EDWARD N. BRUSH, member of the Class.]

GENTLEMEN:—The patient to whom I called your attention in the ward, as suffering from Diabetes, is a young man, nineteen years of age. He has had the disease for a year at least, and perhaps longer. During that time he has occasionally passed seven and eight quarts of urine per diem. He is now passing four and five quarts. He was submitted to the Hospital on the 8th of Oct., and since that time has kept constantly to his bed. He is much emaciated, having lost thirty or more pounds.

Diabetes is a disorder in which, with an unusual amount of urinary secretion, there is also found in the urine a variable quantity of sugar. This is grape sugar, existing as I have said in variable quantity, some patients will produce one pound, others a pound and a half, and others even two pounds per diem. Besides being in the urine, sugar exists to a greater or less extent in the other secretions and excretions of those having diabetes, as in the saliva, fæces, etc., although this fact has been denied by some physiologists. Diabetes is attended by general debility, great thirst, and red tongue, as you have observed in the young man alluded to. The pulse is variable and unusually slow. In the case of the young man it is but 60 per minute, which is very slow for a youth of nineteen. In Diabetes the skin is dry and almost always cold.

There has been a great amount of ingenuity put forth to ascertain the cause of this disease. When first noticed it was supposed to be a disease of the kidneys. This, it is unnecessary for me to tell your, is not so. It is not a renal disease. After existing for a year or more, diabetes may cause what is termed degeneration of the kidneys, but it, of itself, is not a renal disorder.

In an analysis of the blood of diabetic patients, sugar is not found permiating the arterial blood. It is not found in the Portal vein, but is found in the Hepathic. It is found in ascending vena cava, but not in descending vena cava It was discovered that on irritating that portion of the brain under the fourth ventricle, sugar was immediately produced in the urine. On ligating the pneumogastric nerve, sugar was no longer found in the urine, but on irritating the brain under the fourth ventricle it was again produced.

It must not be supposed that because sugar exists in the urine that the patient has diabetes, but when the sugar is present permanently, and in considerable quantities, it is then indicative of diabetes. The urine of diabetes has great specific gravity, that in this case being 1032, water being 1000. The smell of the urine is like that of new mown hay, and in many cases the odor arising from diabetic patients has a sacharine and sickening character. The tests for sugar in the urine which I propose to show you are two in number. The first is called Trommer's test; after adding a few drops of solution of sulphate of copper, pour into the urine in the test tube about half its bulk of liquor potassa. On heating the urine passes from blue to a beautiful green color, and thence to a yellow and dark brown color. The oxide of copper is precipitated. The second test consists in boiling the urine with an equal amount of liquor potassa. The mixture becomes as dark as molasses.

Diabetes proves more rapidly fatal in younger patients. If they do not die from some other disease against which they are not able to cope, they sink from exhaustion produced by the drain on the system. Pulmonary tuberculosis is very apt to ensue in diabetic patients

Knowing that an abundant amount of sugar is being eliminated from the system, the treatment would consist largely in excluding those articles of diet containing sugar and starch. Nearly all kinds of vegetables and fruits are to be withheld, and articles of food consisting wholly or in part of wheat flour, if partaken of at all, are to be used with discretion.

Eggs, meat, milk, articles the opposite to those just mentioned are to be used. Some cases have been reported as cured in this manner, but the number is few, the majority being relieved but for a time. Creasote has been recommended. This patient has been taking one drop three times daily.

Strychnia has been used with great benefit in connection with simple and proper diet. This patient has been placed on milk diet which has been used in the past few years with marked benefit. An exclusive diet of this kind becomes tiresome and disagreeable, and care should be taken to vary the articles of food prepared from it as much as possible.

In connection with this, the patient is taking the following:

℞ Strychnia, gr. i.
Acid Aceteci, q. s.
Water, ℥ iiss.
M One teaspoonful ter in die.

—*Buffalo Med. and Surg. Journal.*

MEDICAL GLEANINGS.

ON THE EFFECTS OF CHLORAL HYDRATE.—The *Lancet* of July 1st, says Mr. Robert Munro's experience of the use of chloral hydrate has led him to the following conclusions:

1. It is of great benefit in cases of mental excitement and functional disturbance of the nervous system, when there is no organic disease of the brain.
2. It is injurious in cases of protracted and great debility, more especially if the body is reduced by unnatural discharges.
3. Its long continued use, even in small doses, is injurious in any circumstances whatever.—*Half-Yearly Abstract of the Medical Sciences.*

THE USE OF IRON IN SCARLATINA.—Dr. Russell Aldridge (*British Medical Journal*, August 12,) draws the attention of the profession to the use of iron in scarlatina. He has given it for the past two years with great success; so much so as to induce him to believe that in it we have a powerful remedial agent for that disease. He has found, if it be given as soon as the disease makes its appearance, that not only does it shorten and lessen the severity of the attack, but it also fortifies the patient against the after-consequences—dropsy, etc. The form which he has mostly used has been the liquor of pernitrate of iron, in syrup or glycerine, in doses of ten minims every three hours for children of from one to six years, increasing, according to age, to fifteen, twenty-five, or thirty minims. During convalescence, he has given citrate of iron and quinine, ammonio-citrate of iron, or syrup of phosphate of iron, according to circumstances. This, with the exception of warm fomentations to the neck in cases of scarlatina anginosa, is all the treatment he has adopted.—*Ibid.*

DIAGNOSIS OF ORGANIC DISEASE OF THE BRAIN IN CHILDHOOD.—On the subject of the differential diagnosis of functional from organic disease of the brain in childhood, Dr. West gives the following suggestions:

"It is most difficult to lay down rules for the avoidance of error, for while it is undoubtedly true that neuralgia may follow either on some previous ill-defined feverish attack, or may take place during convalescence from typhoid fever, it is just in such conditions that real disease of the brain oftenest comes on; and the latter is of far more frequent occurrence than the former. It may, however, be of some use to bear in mind that neuralgia pain is localized in some part of the head; that while it is very intense, and accompanied with excessive intolerance of light and sound, it is also often attended with weeping, and the importance of tears as disproving the existence of real inflammatory disease either in the head or chest, first dwelt on by Trousseau, cannot be overrated. The intervals between the paroxysms are, at times, not only of perfect ease, but of cheerfulness; sickness is absent, the power of taking food is not lost, and sleep, if not interrupted by pain, is quiet and refreshing. Moreover, there is no dizziness, though there may be heat of head; the pulse is unusually quick and feeble, and, I must add, may be irregular or actually intermittent; for, while as a general rule irregularity of the pulse is one of the least invariable symptoms of disease of the brain, there are some children with whom any disorder of the nervous system, especially such as is sympathetic with disturbance of the digestive organs, is invariably attended with irregularity of the heart's action.

"Pain dependent on real cerebral disease is rarely limited to one part of the head; or if it be, it is referred to the forehead. It is generally, though not invariably, less intense, the intermissions of suffering are less complete, and some one symptom almost always attends the pain: it may be sickness or obstinate constipation, or dislike of light or sound, even when the pain abates—some one symptom, small in itself, but enough to keep alive the anxiety of any one who subscribes to Morgagni's saying, that 'the habit of observation is the foundation of the art ot medicine.'"—*Disorders of the Nervous System in Childhood.*

CAMPHOR WITH BROMINE AS A SEDATIVE.—Prof. Deneffe, of Ghent, states (*Presse Med. Belge*, November 19,) that for more than two years he has employed a combination of camphor and bromine, which he thinks is entitled to general attention. The celebrated chemist, Laurent, showed that bromine will easily unite with camphor at the ordinary temperaure, but that the product is slowly decomposed by exposure to the air. M. Swartz, Professor of Chemistry at Ghent, has shown that this body, heated in a closed vessel, is resolved into hydrobromic acid and a crystalized compound, which is monobromized camphor (*camphor monobrome*), a body differing only from ordinary camphor by the substitution of an atom of bromine for an atom of hydrogen. It is a perfectly crystalized substance, fusible at 76 deg. C., and boiling at 274 deg. At Prof. Swartz's request, M. Deneffe has investigated the therapeutical properties of this body, and has found it to be an excellent sedative for the nervous system. He intends shortly to publish his cases in proof of this, and in the present communication furnishes one of these, in which excitement of the nervous system, passing into true delirium tremens, was effectually relieved. He prescribed it in the form of pills, seventy grains being made into thirty pills, of which one was given every hour until twenty had been taken. For three days longer, from forty-five to sixty grains were given in the twenty-four hours, the quantity being diminished from forty-five to thirty grains daily for a week longer. The recovery was progressive and stable.—*Ibid*

INFLUENCE OF THE AGE OF THE MOTHER UPON THE SIZE OF THE FŒTUS.—Dr. Wernich (*Beitrage zur Geburts und Gyn*, 1, 3–16,) undertakes to estab'ish the amount of influence exerted by the age of the mother and the number of her pregnancies, upon the weight and length of the fœtus, as shown by 1,899 births registered at the *Maternite* of Munich, added to the 4,449 cases collecled by Hecker, making in all 6,348 observations. The conclusions confirm those of Hecker and Duncan, that:

1. The weight of the fœtus increases with that of the mother until she has reached the age of 33, the length of the fœtus continuing to increase until her 44th year.
2. Each infant shows an increase in both weight and length above that of the preceding birth.
3. Long intervals between labor are more favorable than short ones in this regard.
4. Menstrual regularity in the mother, and the delivery of the first child at the proper time, favors the chances of vigorous children subsequently.—*Ibid.*

TAPPING IN GASEOUS INTESTINAL DISTENSION.—M. Fonssagrives, Professor at Montpellier, has communicated to the Academy of Medicine, of Paris, a valuable paper on this operation, which, as we all know, is often performed in veterinary surgery. It is said that in Bolivia it is often had recourse to. The best instrument is a grooved needle; but the author has used, with success, a simsle hydrocele trocar. M. Huguier employs a very sharp needle, playing in the canula of a trocar; this needle merely separates the intestinal fibres without dividing them, and prevents the escape of gas or fluid into the peritoneum. When the distention recurs the tapping may be repeated. Numerous operations are not more dangerous than one, as is clearly shown by eighty-four cases collected by the author. M. Fonssagrives cites several examples where asphyxia was imminent by the pushing up of the diaphragm. He thinks that this tapping could be used with advantage in strangulated hernia, to facilitate reduction, either before or after kelotomy, especially when aspiration is combined with the artificial freeing of the gas.—*Lon. Lan.*

CHLOROFORM IN LABOR.—Dr. Graily Hewitt, in the Obstetrical Society of London (*Medical Press and Circular*), uttered the following language: "We have come (some of us, at all events,) to recognize the fact that chloroform has a tendency to make labor *lingering;* that it sometimes enfeebles the uterus, and may thus cause hemorrhage. This tendency it is proposed to do away with, by diluting the chloroform by mixture of alcohol or other vapors, or by accurate mixture with air. Dr. Sansom has pointed out the great liability to the inhalation of poisonously high per centages of chloroform at high temperatures, unless proper care be exercised. Mr. Ellis has given us new inhalers for effecting such mixtures. The general conclusion I take to be, that in ordinary midwifery practice, the anæsthetic should be diluted; that it should not be given to produce the full effect, and that in all cases, rather excessive precautions against hemorrhage are required when chloroform is given.—*Virginia Clinical Record.*

A NEW STYPTIC.—Collodion, 100 parts; carbolic acid, 10 parts; tannin (Pelouse's), 5 parts; benzoic acid (from gum), 5 parts. Mix the ingredients in the order above written, and agitate until perfect solution is effected. This preparation has a brown color, and leaves on evaporation a strongly adherent pellicle. It instantly coagulates blood, forming a consistent clot, and a wound rapidly cicatrizes under its protection.—*Med. and Surg. Reporter.*

ELECTRO-THERAPEUTICS.—Dr. Oskar Berger, of Breslau (*Schmidt's Jahrbucher*, Bd. 151, Nr. 7, 1871; from *Berl. Klin. Wochensch*, viii. 2, 1871), has treated twenty-five patients suffering from tic-douloureux by electricity. In most of the cases the disease was of long standing, and other remedies had failed. A large damp disk was attached to the positive pole and applied to the painful part, while the negative pole was placed in any position, but generally on the hand. The constant current, strong enough to cause a moderate amount of pain, was used. Twenty-two of the twenty-five patients were cured by this treatment. A few relapses occurred, but yielded readily to a reapplication of the same treatment. He has found it also useful in other forms of neuralgia. In hemicrania he has found it useless, as he failed to effect a cure in any of the twenty cases in which it was tried, although the points to which the electrodes were applied were constantly changed.—*Phil. Med. Times.*

FUNCTION OF THE SPLEEN.—M. Mosler, a German scientist referred to in the *Gazette Hebdomadaire* of October 6, 1871, determines as the result of thirty experiments on inferior animals, that the spleen is not essential to life, and that its function is supplied by the lymphatic glands. "The medulla of the bones seems to perform an important supplementary function. It exhibits, long after the extirpation of the spleen, alterations remarkable analogous to those observed in leucemia. The vicarious or supplementary offices of the lymphatic organs, which appear to depend on external circumstances very various in character, are not always completely developed in animals deprived of the spleen; indeed, for several months after the extirpation or atrophy of the organ, the blood appears altered in composition. There is then some reason for admitting a particular influence of the spleen on the formation of blood, more especially on the genesis of the white and red corpuscles. The spleen does not appear to have any influence on the gastric pancreatic digestion. The abnormal development of appetite in animals divested of the spleen, is not a constant symptom.—*Pa. Journal.*

CHLOROFORM IN THE TREATMENT OF BILIARY CALCULI.—Dr, John Barclay, in a communication to the *British Med. Journal.* mentions the case of a man who had suffered for twenty-three years from gall-stones, and knowing that ethers are solvents of cholesterine, he prescribed chloroform in doses of two or three drops three or four times a day, on the chance of reaching the calculi through the blood. The pain, tenderness, distention, and jaundice, all disappeared together, and in the eight years which have since elapsed, the patient has never had another attack.—*The Medical Record.*

SULPHATE OF IRON IN SUPPURATION.—A child, burned all over, was lately brought into the hospital. The suppuration from the wounds was so profuse and offensive that the ward, in which he lay, was almost uninhabitable. He was placed in a bath containing two handfuls of sulphate of iron. The cessation of pain was almost immediate; after repeating the bath twice a day, for fifteen or twenty minutes at a time, the suppuration moderated, the fetid odor disappeared, and the patient rapidly recovered.—*Boston Journal of Chemistry.*

RABIES.—M. Auzias Turenne endeavors to establish a parallel between the phenomena of rabies and those of syphilis. It will be remembered that Marochetti considered that the virus, after having been absorbed by the wound, enters the circulation and then gathers under the tongue. From the third to the ninth day, small vesicles containing the virus appear on each side of the frænum linguæ, and are called lyssæ. He believes that by cauterizing these vesicles the further progress of the disease would be prevented. Experience has not confirmed these views, but M. Turenne, starting from the phenomena, has attempted to liken rabies to syphilis, and the lyssæ to the infecting chancre. —*Dominion Medical Journal.*

STRANGULATED HERNIA REDUCED WHILE STANDING.—Several writers have lately condemned the supine posture for taxis. Dr. C. C. F. Gay, in the *Buffalo Medical and Surgical Journal* for February, argues at length in favour of the erect and semi-prone positions. He uses this language:

"During the past summer I reduced a femoral hernia, right side, by placing the patient upon her right side, nearly in the semi-prone position with her thighs flexed upon the body. Seizing hold of the tumor I immediately reduced it without the aid of chloroform, when I had failed with the patient in almost all other positions when she was under the use of chloroform. I am to conclude therefore that the positions heretofore recommended by the books are not always the best positions, and that if failures occur in such positions, then it will be wise to resort to the upright, and if need be the semi-prone position, when taxis applied will be made most serviceable and efficient.

"I am quite willing now to advance a step and claim that to reduce hernia, whether inguinal or femoral, by taxis, the semi-prone or upright positions of the patient are always advisable; and I am quite willing to use stronger language, and assert, that the two positions named are the best, and the supine posture the worst for the patient to assume. It is not relaxation, but expansion of the abdomidal parietes that we want.

"But yesterday I reduced an inguinal hernia while my patient was standing, after I had made an ineffectual attempt at reduction with my patient lying on his back.

"I will conclude this paper by stating a fact that should be taken into account, when considering the posture of a patient upon whom taxis is to be employed, a fact too, that has hitherto been over-looked by writers upon this subject. I allude to the fact that all or nearly all persons afflicted with hernia never get down on their backs but on the contrary stand upright and reduce their own hernias. I shall only add that I shall henceforth believe, and act upon such belief until convicted of error, that the semi-prone and upright postures have a tendency to, if they do not absolutely, dilate the stricture. If this belief has foundation in fact, then the use of taxis will surpercede the necessity of the use of the knife in a majority, if not in all the cases of strangulation that may occur."—*Pacific Med. Journal.*

TINCTURE OF GELSEMIUM IN TETANUS.—In the *Baltimore Med. Journal* is recorded a recovery from tetanus, for which gelsemium was administered. The disease lasted seventeen days, during which time twenty ounces of the tincture were taken. During the first twelve days the patient took from half a drachm to two drachms every hour.

CASE OF TETANUS CURED BY EXCISION OF A NERVE.—Dr. George E. Foster (*Boston Med. and Surg. Journal*) communicates a case of tetanus, following a wound made by a shoe nail entering the heel. The wound healed, leaving no trace of the injury. About three weeks after, the patient was awakened in the night with chills, stiffness of the limbs, and slight twitching of the muscles of the arm. He was given all the suitable medicines, but with no effect to mitigate the symptoms. It was then decided to cut down and remove a portion of the internal planter nerve, which was done with the effect of entirely relieving the spasms. The patient afterwards had a complete recovery.—*The Medical Record.*

EFFECTS OF BROMIDE OF POTASSIUM.—Dr. Julius Levy, of Berlin, writes that if bromide of potassium, in drachm doses, three times daily, is continued for months, a series of boils will be apt to be produced. He says if some preparations of cinchona be given with the bromide, no boils or other evil sequelæ will arise.—*Medical Record.*

Book Notices.

HISTORY OF MEDICINE FROM THE EARLIEST AGES TO THE COMMENCEMENT OF THE NINETEENTH CENTURY.—By ROBLEY DUNGLISON, M. D., LL. D., Latin Prof. of the Institutes of Medicine and Med. Jurisprudence in Jefferson Med. College, etc. etc. Arranged and Edited by Richard J. Dunglison, M. D. Philadelphia: Lindsay & Blackiston. Cincinnati: Geo. E. Stevens & Co. 12mo. pp. 287. 1872.

The editor truly states that the present work will supply the want, long felt by the profession, of a condensed history of the progress of medicine, presenting all the main facts in systematic order. It embodies the course of lectures delivered by the author at the University of Virginia many years since.

It is truly remarkable how ignorant we find physicians of the history of their profession. Scarcely one in a hundred is familiar with the history of the most prominent events in medicine. We have even heard of teachers of medicine who could not tell who discovered the circulation of the blood. There has been, however, some extenuation for this ignorance in the fact that there has scarcely been a convenient congenial work on the history of medicine to which the masses of the profession could have access. This want will now be supplied by the work of Dr. Dunglison, and the physician hereafter who is not more or less conversant with the facts that have transpired in the progress of his profession must be regarded as culpably ignorant.

Commencing with the account of the gross superstition that prevailed in the early ages in regard to disease and the modes of cure, Dr. Dunglison gives a lucid and highly interesting history in the twenty-eight chapters that make up the work, of the evolution, step by step, of the science of medicine as it exists at the present day. By slow degrees, as he shows, did it free itself from the shackles of superstition—carrying along many of them for hundreds of years—yet from its inception was its progress always onwards. In the seventeenth century, we learn a sect of fanatical physicians, known under the name of Rosicrucians, arose, who sought after modes of curing disease in the knowledge of the occult sciences, and who pretended to cure all diseases by the aid of faith and the imagination, asserting that the most serious diseases might be suddenly cured by the sole glance of a true Rosicrucian; yet in this century, Wm. Harvey discovered the circulation of the blood, and anatomy and physiology may be said to have made a philosophical progress calculated to extend the domain of medicine.

We bespeak for the work a large circulation among medical men, for it is not large, and is cheap. We would regard no physician's library complete without a copy on its shelves. It is sold by subscription only. We will undertake to forward all subscriptions to the publishers. Price $2.50

EARTH AS A TOPICAL APPLICATION IN SURGERY—Being a full Exposition of its Use in all the Cases requiring topical Applications admitted in the Men's and Women's Surgical Wards of the Pennsylvania Hospital, during a period of six months, in 1869. By ADDINELL HEWSON, M. D.; with Four photo-relief illustrations. Philadelphia: Lindsay & Blackiston. Cincinnati: R. Clark & Co. 12mo. pp. 309. 1872.

This is a very interesting little work and will well repay perusal and study. As its title indicates, it is devoted to the treatment of earth as a topical agent in surgery. At the beginning of 1869, the author having been zealously engaged in the search of some more efficient disinfecting dressing, had his attention drawn to the possibility that the disinfecting power of earth might be turned to advantage in surgery. He therefore determined to give it a trial, and at the very outset he demonstrated, to his own satisfaction, not only its efficacy as a deodorizer, but its power to effect, in a beneficial manner, the healing of inflamed ulcerated surfaces.

Ninety-three cases are reported, of every variety of surgical disease and injury, treated by the earth, and in all of them the results were highly satisfactory. After the reports, follow comments, and then the modus operandi of the influence of the earth treatment is discussed.

The work will undoubtedly be regarded as a valuable contribution to surgical therapeutics, and should be studied by every surgeon. We regret we have not space to give a fuller exhibit of its scope, which is quite large, treating, as it does, not only of injuries, but of operations, cancer, etc.

ANIMAL AND VEGETABLE PARASITES OF THE HUMAN SKIN. By B. JAY JEFFRIES, A. M., M. D., Fellow of the Mass. Med. Soc. Boston: Alexander Moore. 16mo. pp. 102.

We have treated in this little work, *Animal Parasites of the Human Skin; Vegetable Parasites of the Human Skin; and False Parasites of the Human Body.*

It is a singular subject on which to have a monogram devoted—but why not? Other minute forms of animal life have large volumes devoted to them, and why should those insects which infest the human body be neglected?

The whole history of these little animals is thoroughly treated—their life, character, occupation, etc. etc. All who wish to study them should have the book, and we are sure they will not consider their time wasted.

Editorial.

TO SUBSCRIBERS.—We propose soon to send bills to subscribers who have not paid their subscriptions for the present year. If such, however, will remit to us without waiting for a bill, they will save us much trouble. Every bill paid saves us time and labor. Quite a number have already settled and such have our thanks. Address, J. A. Thacker, M. D., N. W. corner Plum and Longworth streets.

CINCINNATI COLLEGE OF MEDICINE AND SURGERY.—The faculty of this institution, we are happy to say, have just purchased the fine substantial building on the north side of George street, between John and Smith streets, formerly occupied as a Catholic seminary, for their use. With a little remodeling, which will be done during the summer, it will be as well adapted for a medical college as though it had been built for the purpose. A fine large hall which occupies the whole of the third story, and capable of seating about two-hundred students, needs, as it is, only to be furnished with chairs to be ready for use. A second lecture room, however, will require to be made out of several recitation rooms by removing the present partition walls, which can very easily be done. A most superb dissecting room can be made out of a rear room in one of the lower stories.

Besides two fine, large lecture rooms, a laboratory, and a splendid dissecting room conveniently located, the building will have abundance of rooms, and to spare, for a museum, faculty room, office, etc., and rooms for the janitor to reside in. There will be nothing wanting as rds space for every convenience necessary for thorough medical uction. The building occupies a lot over thirty-three wide by y feet deep to an alley. It is of modern architecture and is built ie thoroughly substantial manner in which the Catholics are tomed to build their public buildings. There is no "ginger work" ; it.

teel assured that the alumni and friends of the Cincinnati College dicine and Surgery generally will rejoice in the prospect of the ition getting into a building worthy of it. It has been for a long ccupying quarters very dilapidated in appearance, and cramped; reafter it will not labor under such a disadvantage, but will have ice, which its faculty will own, of which there will be no need ig ashamed.

ld building will be occupied during the present term of Lectures, new building will be ready for occupancy by the first of Octo- he new site is far more pleasant in location, and nearer the l than the old one.

ollege never had so fair prospects as at the present time. It has had many obstacles in its way, but one by one they have been surmounted and now every thing seems prosperous before it. The faculty are as one man, who are laboring for the advancement of medical science and the prosperity of the school.

The faculty as now organized are as follows: D. D. BRAMBLE, M. D., Prof. of Surgery; R. C. S. REED, M. D., Prof. of Materia Medica and Therapeutics; A. J. MILES, M. D., Prof. of Diseases of Women and Children; J. B. A. RISK, M. D., Prof. of Obstetrics; H. C. BAUM, M. D., Prof. of Chemistry; M. L. AMICK, M. D., Prof. of Anatomy; J. A. THACKER, M. D., Prof. of Principles and Practice of Medicine.

OVERREACHED HIMSELF.—It seems Prof. Seely, Secretary of the faculty of the Ohio College, overreached himself in *officially* calling upon the editor of the *Lancet and Observer* to correct a "misrepresentation" he made in publishing the number of matriculants of the last session of the Medical College of Ohio. The editor stated that the number in attendance was "about 200:" whereupon he is "officially informed that the books, the Clinic, and the Dean's statement in the daily papers make the number 226." Manifestly it was Prof. Seely's design to show not only that the editor sinned, but that he "sinned against light and knowledge"—a most aggravated offense. But our editor is not to be caught in that way; for while he publishes the Prof.'s demand upon him for correction, he proceeds to show that the matriculating lists of the Ohio College are a *fraud;* and in doing so discourseth as follows: "We certainly have no desire or necessity for misrepresenting any of the institutions of our city. This permits us, however, to remark that matriculation lists are well known hereabouts to be very defective evidences of attendance. It permits us to say that persistent efforts have been made to depreciate and overshadow the steady growing and *bona fide* classes of the 'Miami.' It permits us so say that *we know* many names of M. D.'s and other complimentary names, went on the Ohio matriculation book last session that *were never in attendance;* and that upon various occasions, and with the most popular lectures of the school, only about 150 were on the benches." Thus it is seen that the enterprising Secretary of the Ohio College, in his efforts to make out that our editor had "sinned against light and knowledge," gets his own faculty convicted of perpetrating a miserable *fraud* on the profession and the community.

"But this permits us to say" that this boasting of patronage is the fashion of quacks and charlatans. Not only has the Medical College of Ohio been doing it in these latter days, but also has the Miami College.

If patronage is the measure of merit in one respect, it is in all respects. If it measures the merits of a medical college, it measures the merits of the practitioner of medicine, and in that case the majority of the men that make up the faculty of the Medical College of Ohio would only rank as tenth rate doctors; for only two or three of them have practices that yield more than a few hundred a year. But some persons will be found not having sense enough to see where their reasoning leads them. In days gone by, the Medical College of Ohio did not flaunt abroad in newspapers and by other means the patronage it was enjoying. It pursued the course that would be expected of men of dignity and great acquirements, for it knew that with the boaster the amount of patronage was generally the measure of his unscrupulous use of means and not the measure of his merits.

"This permits us to say" that in both the Ohio College and Miami College spring schools are held conducted mostly by young sprigs of medicine not members of the faculty. Every sort of means is employed to get students of medicine, and even those who are not, to matriculate as attending these courses of instruction. Now, although they form no part of the regular course, yet the genuine and fictitious attendants upon these lectures are enumerated as *bqna fiae* students of the regular course.

"This permits us to say" that we think it is high time the profession was discountenancing the fraud and deception made use of by certain schools for the purpose of obtaining patronage. If it is quackery in a practitioner of medicine to misrepresent and vaunt forth his own praise to secure patients, it is equally quackery for a medical college to do so to obtain students. Yet it is being done by certain schools continually. And what is remarkable, the men who do it pride themselves as much in the gain obtained as an honest man would in the fruits of his integrity.

INFORMATION WANTED.—We will be much obliged to any one who will inform us whether or not the *Clinic*, a little (*weakly*) sheet of four or five pages, in which several of the younger members of the faculty of the Ohio College, were wont to print their compositions, is still published. It has been about two months since we have received a copy, and we fear something has happened it. We would be very sorry indeed, to hear that it had stopped, for it was a source of great pleasure and pride to the young gents who carried it on, and who in their youthful simplicity thought that they were conducting a real medical journal, like the little boy imagines his hobby-horse to be the real equine animal. Our mind is agitated by a number of causes suggesting themselves as reasons why we do not see any more of the paper: It sometimes occurs to us that the young conductors have exhausted all the nickles that they had accumulated in their painted tin banks, and so have been compelled to suspend until they filled them up again; sometimes we think that Prof. Graham's declaration to the editor-in-chief of employing the sheets of the *Clinic* for certain physical uses has had a disheartening effect; sometimes we fear that our young friend, the proof reader, has been compelled to drop his pen and stop his proof reading on account of a charge of bastardy being brought against him for getting an old lady]in a family way with a pewter syringe, or by some mechanical means other than the natural mode which he was not able to employ on account of some physical disability. [See some of the early Nos. of the Clinic.]

But before we proceed further to recount possible misfortunes, we will wait until some one is kind enough to leave at our office some definite information whether or not the little so-called medical journal is published. Perhaps of the 150 copies issued monthly, it has been found inconvenient to spare one for the NEWS, and that is the reason why we do not receive our exchange copy.

HOSPITAL APPOINTMENTS.—We commend the following extracts to our readers from an editorial in the *Medical Record* of April 15th. It will be observed that the editor takes the same views in regard to hospital appointments that we have been urging for several years, and which we finally compelled a recognition of in Cincinnati.

"It has become so much the fashion in making hospital appointments to allow almost every consederation save professional ability to influence the appointing power, that the prospect of reform seems an almost hopeless one. We are so firmly convinced, however, that there must be some remedy for the evils connected with the practice, that we are determined to make every effort to discover it. We are perfectly aware of the fact that every applicant for a position in the hospital cannot expect to be successful, but, in view of the large number of capable men who do apply, we have a right to complain when the selections are not extraordinarily good ones.

"From present indications there appears to be no possible excuse for the ordinary and generally accepted method of filling the professional positions in our large hospitals save partizanship, or gross favoritism. The reasons why such and such men hold such positions are very easily explained. Here, for instance, is a college which must have nearly every member of its faculty in a hospital position, and when each member of said faculty who desires such an appointment is satisfied, it so happens that there are no places for any one else. The appointing power of another hospital is given to a single medical gentleman, and if he is connected with any particular school, as he is most sure to be, so much the better for the school. If he has friends or relatives whom he wishes to advance, no one seems to question his right to find positions for them, not only in the hospital, but in the college—in fact, in the interests of the school he represents, both appointments must go together. In a hospital in which all the schools have a right to be represented, there are many tricks played, and many subterfuges resorted to in order to have a majority representation, which, if the said manœuvres were not made by some of our leading teachers, we should be priviledged in calling them unprofessional, disgraceful, and ungentlemanly.

"We are emphatically opposed to all party influences in making these appointments, and believe that every man who applies for a position should have his claims impartially considered. We care not whether he be a professor or a 'possessor,' or both; we, in the interests of the profession at large, call for fair play. When a hospital staff is to be selected, let the fact be duly advertised; let each applicant for the place present his credentials and his claims, and let these alone be the bases upon which his position is secured.

"In a future occasion we shall present some of the details by which hospital appointments are secured to the select few. If any of our readers have any facts to communicate bearing upon this point, we shall use them in such a way as shall tend to promote the best interests of the profession, and the greatest good to our public itstitutions. Our sole aim shall be to ventilate the subject with a view to reform and to reform only, entirely independent of every other consideration but simple justice. We believe that this and a great many other matters connected with our hospital management need looking into, and we are ready and willing to discuss them."

PHOTO-MICROGRAPHS.—We have received from Dr. Woodward, Assistant Surgeon U. S. A., of the Army Medical Museum at Washington, several finely executed photo-micrographs of test diatoms—surirella gemma, amphipleura pellucida, grammatophora subtilissima and marina. These were all taken by Powell and Lealand's immersion sixteenth objective, and exhibit the markings sharply.

A careful study of the markings upon the s. gemma by monochromatic light inclines him to the opinion that the fine striæ are in reality rows of minute hemispherical bosses, and not elongated hexagons as supposed by Hartnack. The latter appearance, he thinks, would result if the frustule was observed by an objective of inferior defining power to that he used, or if the illumination was unsuitable.

The photo-micrographs of am. pellucida are very fine. The two from negative No. 547, it seems to us, could not be more perfect. The striæ are represented as large, very regular, and well defined in every particular. His estimate of the number of striæ is 100 to 1-1000 of an inch.

Dr. Woodward undoubtedly stands at the head of microscopists of this country. His researches have been very great, and have been marked with wonderful skill He has probably done more than any other person in the world in advancing photo-micrography. The results of his labors in this direction have received the admiration of the leading microscopists of Europe.

He expects at some future time to make a Memorandum on the history of subtilissima as a test object in this country, and to illustrate with pictures taken with higher powers, which can easily be done.

CEREBRO-SPINAL MENINGITIS.—From correspondents in Iowa, Illinois, Indiana, Knoxville, Tenn., and points in Ohio we learn that cerebro-spinal meningitis is prevailing over a large portion of the country as an epidemic. Quite a number of cases have occurred in Cincinnati.

We give two articles in this number of the NEWS on this disease. The compilation is from the best sources, and is therefore valuable. We hope some of our subscribers who have had experience in the malady, and have made observations that might probably be of value will report the some to us at an early day.

MEDICAL REGISTER AND DIRECTORY OF THE UNITED STATES.—Dr. J. M. Toner, of Washington, is preparing a work with the above title. Besides a list of medical colleges, etc., it will contain the post-office address of all the physicians in the United States who obtained a license to practice in 1870. These lists have been corrected by extensive correspondence. It will be a valuable work. Published by S. W. Bulter, of Philadelphia. Price $6.

KENNEDY'S PINUS CANADENSIS.—This is a medicine which we have no doubt will soon acquire a high position among remedies. We have made use of it in quite a number of instances, and always with the most satisfactory results. In some of the diseases of the vagina, rectum, urethra, and cervix uteri, we consider it has no superior.

See advertisement containing Dr. J. Marion Sims' testimony of the value of the medicine.

OBITUARY.

Prof. SAMUEL H. DICKSON, M. D., L. L. D., Prof. in Jefferson Medical College, and author of a Practice of Medicine, died in Philadelphia March 31st. Prof. D. was one of our subscribers.

DR. SAMUEL JACKSON, Emeritus Professor of the Institutes of Medicine in the University of Pennsylvania, died April 5th, in Philadelphia, at the age of 85.

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USE OF OBSTETRICAL INSTRUMENTS.

By J. W. H. Baker, M. D., of Davenport.

Mr. President, and Gentlemen of the Iowa State Medical Society:

The subject upon which I have the appointment as reporter is, *The Use of Obstetrical Instruments.* In the consideration of this subject it were useless to endeavor a description of all the variety of instruments and the special commendation of some particular ones, the favorites of particular authors, as that is a matter of little importance so long as the obstetrician is an adept in the use of them. I am of the opinion that this society could have made a selection from among its members of a more experienced physician to report upon this subject than myself. But not wishing to have the consideration of this subject fail in its appearance before the society, I shall attempt the vindication of a more frequent and early resort to the use of delivery by forceps than is usual or customary among obstetric practitioners at the present time.

"A woman, aged 39, died in labor on the 18th of July, after suffering severe and ineffectual pains for forty-eight hours. She was buried next day, but in consequence of reports that she was not properly treated, the body was disinterred three weeks and four days afterward. The attending physician stated that the os uteri was, during labor, so rigid and studded with tubercles that he never could introduce more than one finger into the cervix. The patient suffered from repeated uterine hemorrhages for some time previous to enduring labor. On exhumation and examination, a child of near eight months growth was found lying on the mother's thigh, the head downward, and one foot and the funis still connected with the vagina. Two large ulcers were observed in the neck of the uterus and in the back of the vagina. The neck was perfectly relaxed, the placenta still attached to the fundus uteri, but the uterus loose and not contracted—indeed, presenting a cavity nearly large enough for the fœtus, which had been expelled. The nurse was positive of the fœtus having been in the uterus seven hours after death."

It may be asked, How is it that a child, which was expelled after the death of the mother, could not be removed during life? We think it could. This report, and the occurrence here recited, was an instance of the practice of the obstetric art previous to the discovery of the applicability of anæsthetic medicines in the practice of midwifery; and moreover, while instrumental applications were held in horror, and not brought to bear as assistants in tedious labor, but rather confined to deformities and diseased conditions, preventing a favorable termination to labor. At the present time we are disposed to think no such case would baffle the skill of the accoucher. We would have resorted to a variety of treatments, and never have contented ourselves short of a resort to instruments. Dilators and forceps would have undoubtedly terminated the labor, and the use of anæsthetics would have given the physician all the necessary relief from nervous disquiet and painful restlessness in order to make a thorough examination, and apply instruments for her assistance.

Some four or five years since, a young woman of a robust and healthy form, muscular and strong, was taken in labor; child at full time and labor tedious. The attendant, a novice in the obstetric art, encouraged her to think she was doing well, and after three days, surrounded by anxious neighbors and friends, the child was born dead. The placenta was retained as usual. The obstetrician pulled upon the cord and broke it off. He then tried to remove the placenta with his hand, but as the effort to introduce his hand hurt the woman, he desisted, saying that he had removed several pieces,—still advising the family to send for an old midwife, whose hand was smaller than his, and who would remove the remainder of the placenta. The midwife came, and, as she says, removed more of the placenta, and probably the whole of it. Four days afterward the relatives became alarmed at the symptoms, and sent for assistance. The physician who was called this time found the woman in articulo mortis, and suspecting a decayed placenta retained within the generative organs as the source of all the trouble, made an examination, and found a most offensively odorous placenta lying loosely within the vagina, which he removed; but from the large amount of poisonous matter absorbed by the system, the patient sank and died in about two hours. In this case, provided the cord had given way, the judicious use of the placental hook would have removed the cause of death, and undoubtedly the woman would have been among the living to-day. But sacrifices must be made, and are made, and no amount of experience will give way to a determined use of uneducated quacks, who wish the notoriety of having had some experience in the practice of the obstetric art. And nothing daunts them, until some failure like the above, to show that they are unqualified.

In remarks upon the first of the foregoing cases, I say that the case occurred at a time when an obstetric instrument was held in horror. Even to this day, the people, as a majority, are still educated to believe the obstetric forcep a horrible thing, and look upon the practitioner as a bold man who could frequently use such instruments. How frequently do we find the lying-in room emptied of its female assistants by the mere mention of the necessity of relieving a tedious and ineffective labor by the gentle assistance of forceps. I say gentle assistance, for in many of those lingering labors, where the progress has been slow and the patient somewhat worn out, even though no apparent difficulty exists, the assistance of the forceps, carefully applied and used by gentle traction, is not only harmless, but of most decided benefit to the patient, and the means of terminating a labor, where, from exhaustion alone, the patient rallies the following day to thank you for your timely and kind assistance in shortening her sufferings and giving her such kind attention.

Thomas More Madden, in a recent lecture upon the use of the forceps in midwifery, says:

"Notwithstanding all that has been written on this subject of late years, the application of the forceps is still, I fear, regarded with prejudice by many practitioners, and in some of the textbooks on midwifery, which are in vogue with students, the employment of the forceps is restricted by the reiteration of rules prescribed by writers whose experience in the use of this instrument was extremely limited, and who attributed disastrous results to the forceps, which were probably caused by their want of dexterity in its application, or by their *delay* in resorting to it."

Dr. Swayne, in giving the statistics of forty-five cases of delivery by forceps, summing up the sequelæ or complications, and mentioning lacerations of the perineum (of which the proportion was no greater than those of ordinary labor), post-partem hemorrhage, laceration of the os uteri, sloughing of the vagina, says: "These occurrences are by no means attributable to the use of the forceps, for the operation was soon accomplished without difficulty, and I believe that if the forceps had been sooner applied, they would not have happened."

We cannot expect the free and unbiased use of the forceps when the people are instructed to believe their use is butchery, or while our students and professional brothers are instructed as follows as to the results of their use:

"Smellie, the inventor of the long forceps, was so fully aware of the danger of fatal contusion and laceration of the uterus and vagina, necessarily incurred by the application of the long forceps, when the head of the child remained above the brim of the pelvis, that he did not venture to exhibit the instrument to his pupils, from the dread that it would be misapplied; and it appears he always used and recommended the short forceps."

"Denman says: 'It behooveth every person who may use instruments in the practice of midwifery to be well convinced of the necessity before they are used, and to be extremely careful in their use, that he does not create new evils, or aggravate those which might be existing.'"

"Dr. Blundell states that in violent hands 'the long forceps is a tremendous instrument: force kills the child, force bruises the soft parts, force occasions mortification, force breaks the neck of the bladder, force crushes the nerves. Beware of force, therefore, *arte, non vi.*'"

The oft-quoted line, "*Meddlesome midwifery is bad midwifery*," has been so long emblazoned to the profession, that many medical men have been led to believe that forceps are hardly ever used from necessity. And I believe, in many cases, women have lost their lives from the very strong and frequent quotation of this line by obstetric teachers dissuading the practitioner from the use of obstetric instruments.

Denman's rule, that the fœtal head should lie six hours in contact with the perineum before we resort to the forceps, is a fallacy. At the present day we know that the head seldom rests at all on the perineum before we apply the forceps, and many times we are obliged to apply them while the head rests in the upper strait, and I believe that the same practice was, or would have been, resorted to by these very exact teachers of the science of obstetrics, who say that six hours rest on the perineum, or that the labor pains should be greatly diminished, or cease entirely, before we resort to the use of forceps.

Dr. Wilson, of Glasgow, in writting upon the use of forceps, says: "Among the causes of failure in the use of the obstetric forceps, the want of tact or of sufficient manual training will, perhaps, be found the cause. It is a great mistake, both in surgery and in midwifery, to suppose that perfect knowledge will insure success in the operative department of either branch. The head must be perfectly informed, but the hand must be no less perfectly trained, and the only way to acquire tact and training is by the frequent and familiar use of obstetric machines. I have reason to suspect that this mode of training is not sufficiently appreciated, and there is, I fear, a lurking belief that many of the operations in our profession may be performed intuitively, particularly operative midwifery. But as soon may we expect a mechanic to perform any of the manifold operations of his craft by reading, or listening to lectures on them, without the toil and training of a long apprenticeship; or that an artist, from a knowledge alone of the principles of painting, should produce a finished picture; or that the stone should, as if by magic, assume the figure and animated form of some ancient statue by the first rude touches of the chisel and mallet, as to suppose the complex and often dangerous operations of which we have been treating, and which generally involve the lives of two beings, can safely or successfully be performed without a previous and sufficient manual training."

I have witnessed the death of child-bearing women in several instances, some after the use of forceps, and some without instrumental delivery, and in no case could I ever attribute the death to the use of the forceps.

Mrs. —— was taken in labor with her first child, at full time. Her labor was slow, and of little force; had irregular pains for three days, after which pains of a more severe character set in, and, no progress being made in the way of terminating the labor, resort was had to forceps. A very large child was, after a severe effort, delivered. The woman sank, and died in half an hour after delivery. No flooding, no abraded surface of the uterus, or its connected organs, were found, although forceps were used.

Mrs. —— was taken in labor with her eighth or ninth child. The pains were of a mild character, and little progress was made. She was frequently visited by her attendant, and examinations made, and, from the evident lack of force in the pains, and the fact that her labors were usually rapid and effective, so soon as the pains showed some power, delay was made until the third day, when the waters broke and disclosed a shoulder presentation. The attendant made efforts to return the shoulder, and, failing, sent for counsel. When the counsel arrived the woman was pulseless, although conscious. Gave stimulants, and by gentle pressure upon the presenting part, the shoulder receded, and the head came into proper position, when a comparatively mild pain expelled the child. The woman died in twenty minutes after delivery, perfectly conscious, and without convulsions, hemorrhage, or lacerations. No instruments were used.

Mrs. ——, a large, leucophlegmatic woman, was taken in active labor at 5 o'clock P. M. Sent for her physician, who examined her, and found the os partially dilated, pains good, and still was of the opinion that the woman would not need his services until he could procure his supper. She had borne some six or eight children, and had had serveral miscarriages, accompanied with excessive flooding. The physician retired for his supper, and on his return found evidence that the labor was progressing, but after remaining about two hours, found that the head of the child had become impacted in the passage of superior strait, lying firmly against the prominence of the sacrum; the pains were most severe, and after waiting quite a time, say two or three hours, with pains of this character, recourse was had to the forceps. With them a moderate amount of force, acting with the leverage and tractile power of the instruments, sufficed to deliver a child, of fifteen pounds weight, alive and active. The woman was left comfortable. After an hour or more, while the woman assumed a sitting posture in bed, she was seized with pains in the region of the left breast, and extending over the cardiac region, difficult respiration, cold extremeties, and evident symptoms of asphyxia, and, in about three hours, died. There was no flooding, no lacerations of the uterine organs, no evidence of contusion or crushed nerves,—finally, no evidence of injury from the use of forceps.

Mrs. —— was taken in labor with her second child; had a moderate labor, although lingering; was attended by her physician, who, after a little more than an ordinary time, left his patient well, delivered without forceps, comfortable, and without pain. In some two or three hours he was sent for, with the information that the woman was dying. He hastened with all dispatch to find the message too true, for she was dead before his arrival. Examination disclosed no hemorrhage or injury to the organs of generation.

Here I have cited four cases of death suddenly following delivery. Two of the cases were instrumental, and two without instruments, and so far as symptoms could indicate, there was no material difference whether the forceps were used or not. And I could refer to others, which would continue the comparative innocuous effect of the use of instruments. In fact, most of the deaths suddenly following labor, can be much better accounted for in the delay before resorting to instrumental delivery, than that any blame should be attributed to the use of instruments themselves.

Most of our eminent authorities upon the use of the forceps at the present day, recommend an early resort to their use, and do not choose to associate a horror in their teaching the proper use of such instruments. The general idea with experienced obstetricians is, that the use of the forceps may be resorted to in almost any tedious labor; and a recent writer upon the practice of midwifery says no obstetrician should go to attend a case of child-birth without taking his forceps with him, and that any one neglecting to do so is guilty of a breach of duty. If this method were generally adopted, we should not have had the assertion of Dr. Braithwaite, of Leeds, who, in speaking of the forceps, says: "The instrument is seldom at hand when wanted, and has to be sent for, to the great alarm of the patient and her friends."

This writer very curtly remarks upon the initiatory difficulties of breaking an instrumental delivery to friends and the patient, as follows: "It is unnecessary for me to picture to you the questioning one has to undergo from the friends, the trouble required to calm the fears of the patient, and the unjust blame to which we may be subjected by our female critics for using instruments, which '*never were needful when they were having a family.*' You will doubtless be able to call to mind times when you have waited many weary hours, wishing you had some means of assisting the descent of the head, yet when you hardly liked to apply the forceps, though the waning powers of the patient made you anticipate such a termination to the case."

Yes, at this time I am reminded of a case in my earlier practice, which, were it now to occur, whould produce somewhat of a different scene. But memory will not let me leave the case unwritten.

Mrs. —— was taken in labor with her first child. I was called. Made an examination, found little progress, and moderate pains. Left, and in the course of a few hours returned, finding the patient restless, and the friends around her anxious, and expressing the opinion that she ought to get along faster. I examined the case again, and found the os very slightly dilated, and pains of only moderate force; informed the friends that I thought the case was doing well, and that we should wait patiently. Twenty-four hours passed and the labor had improved but slightly; the os was gradually being dilated, and the pains of considerable force. The patient was restless and feverish, and the friends much more restless, not to say feverish. I still encouraged the patient, hoping the labor would terminate with a few more pains. The force of the pains soon greatly increased, but the firm and rigid uterus, and the close, muscular form of the patient, presented obstacles to the rapid delivery, and the head of the child passed slowly, although surely, toward a termination of the labor. I was continually trying to encourage the patient and friends, but while the patient took courage, the friends were losing confidence. In this dilemma, my thoughts wandered to forceps, but almost all our authorities were of the opinion that instrumental delivery should only be resorted to when it was absolutely necessary. I did not think that this was one of the absolute kind. I had been taught by my obstetric professor that patience, perseverance, and sweet oil accomplished wonderful things, especially in this very class of cases. I therefore used patience, perseverance, and sweet oil. But sweet oil and encouragement did not answer for the friends. They were out of all patience, and wished to know why the woman did not get through. I told them that everything was right, and we had only to wait. But the idea of waiting had before been suggested, and now a want of confidence in my ability suggested itself, and a consultation was intimated. I informed the friends that there was no occasion for such, as the case only required a short time, and would probably be through before counsel could be obtained· The child's head lay quite low, and the os was fully dilated, but the rigidity of the surrounding parts prevented its expulsion. The pains became terrific, and the patient worked faithfully. Finally, after the subsidence of one of the severe pains, one of the near relatives of the patient came up to me, as I sat by the patient endeavoring to give her all the assistance and encouragement I could, and, with her Amazonian fist doubled up, she thrust the same very nearly in my face and requested me to leave, and threatened that if I did not, she would make me do so. I informed her that I would do so as soon as she would procure a physician to take my place, but that I dared not leave until such physician was obtained. The patient, meanwhile, asking her relative to leave the room, she retired, and after a few more pains the labor terminated in the birth of a vigorous child,—about thirty-six hours from its commencement. The patient slowly recovered from her postrate condition, much more slowly than the majority of such cases in which I now would resort to forceps for assistance, although such instruments might not be absolutely necessary to the favorable termination of the case. This Amazon always regretted her interference, while I shall always remember the peculiar vigor with which she presented her request for me to leave.

All the more recent statistics upon the use of the obstetric forceps tend to show the propriety and success of an early resort to this instrument.

Reports of the Dublin Lying-in Hospital show that under the mastership of Dr. Joseph Clarke, from 1787 to 1792, 10,287 deliveries took place, and forceps were only used fourteen times.

During the mastership of Dr. Dabatt, from 1815 to 1821, there were 21,867 births, and forceps were never applied.

During Dr. Collin's mastership, from 1826 to 1833, the number of births in the hospital were 16,654, and in only twenty-four of these were the forceps used, while craniotomy was performed in no less than one-hundred and eighteen cases.

Drs. McClintock and Hardy in their report of three years practice in the hospital, under the mastership of the late Dr. Charles Johnston, from 1842 to 1845, state that in 6,702 deliveries, the forceps were only used in eighteen cases; in sixteen, the vectis; in thirty, ergot; and in no less than sixty-two cases the perforater and crotchet were resorted to.

The proportion of forceps cases has been gradually increasing, both in hospital and private practice, until now we are not astonished when we read, as I have recently, of a very distinguished practitioner who says his practice will average a proportion of instrumental delivery of one out of every nine cases.

In my own practice, out of 1,150 cases of child-birth, I have had two cases of craniotomy; three cases of decapitation; two cases of amputation of arm before turning; three cases terminated by use of the blunt hook; and fifty-seven cases delivered with the forceps.

In instrumental cases, even those of the most severe character, the recovery of the mother after delivery is remarkable, such cases usually recovering rapidly, and sometimes more rapidly than cases of ordinary labor. In none of the cases under my observation, when instrumental delivery was resorted to, has there been evidence of injurious effect in the use of forceps,—not to say that all the children were born alive, but most of them were. In most of the still-born, evidence of death was positive before the instruments were resorted to.

From the times when the use of the forceps was rarely attempted, we have already arrived at the time when it has become a common rule to use them in most of the tedious labors as an assistant by way of traction; and, moreover, not with the patient deceived, and with an instrument of such fine dimensions as to be concealed in the vest pocket, but by request of the patient, and an instrument of effective power, operating for the relief of that portion of the human race whose duty is to conceive and bring forth, multiply and replenish the earth. I will close this essay by quoting from a small volume entitled the "London Practice of Midwifery," published in 1820, and the sentiments it conveys I think most applicable to the present time. In speaking of the use of forceps, it says: "There is not any difference between pushing a man into the water and not helping him out if we see him drowning; neither, in the same way, is there any difference between destroying a woman purposely, and neglecting to employ those means which, when she is in danger, will certainly save her life."—*Trans. of the Iowa State Med. Society.*

PATHOLOGY AND TREATMENT OF FEVER.

By G. D. WHITAKER, M. D. of Carlyle, Kansas.

There is much disparity of opinion in regard to the pathology of idiopathic fever, as well as to the mode of treatment best to be pursued. Also, we find many who advocate the idea that a case of idiopathic fever cannot be successfully interrupted, while on the other hand we find those who firmly declare that a case of fever *may be aborted.* Be this as it may, I beg leave to submit the following list of propositions through the columns of the NEWS, and especially to my well remembered class-mates of the College of Medicine and Surgery.

PROPOSITION 1.—The predisposing cause of fever is specific in its nature.

2.—The nervous system presides over the circulation, and through the circulation it presides over the process of nutrition, thereby indirectly regulating the process of destructive assimilation or tissue metamorphosis.

3.—The process of nutrition and that of tissue metamorphosis directly regulate the process of combustion upon which the existence and manifestation of fever depend.

4.—The primary impression in fever is made directly upon the nervous system (the vagus and the sympathetic), as shown by the symptoms during the period of incubation, not upon the circulation by the introduction of so-called blood poison.

5.—In fever the abnormal condition of the circulating fluid is secondary to the impression made upon the nervous system, and a sequence of destructive assimilation and perverted secretions.

6.—Idiopathic is the only essential form of fever.

7.—Intermittent is the true type of fever.

8.—In continued forms of fever, where there is no well marked period of intermission, the process of destructive assimilation is carried on at increased rates, while the means of supply are still more enfeebled.

9.—Sulphate of quinia exerts a peculiarly favorable influence over fever of the intermittent type.

10.—In view of Prop. 1st, sulph. quina. is adapted to the treatment of continued forms of fever as well as those of the intermittent type.

11.—In view of Prop. 8th, there is an indication for the use of stimulants in continued forms of fever.

12.—In view of Prop. 5, there is an additional indication to facilitate the discharge of effete material through the natural emunctories of the body.

13.—By judicious treatment, a fever case may be aborted, its course may be successfully interrupted.

In the management of "fever cases," I have held a due regard for the above list of propositions (which of course are to have a general application rather than a special one) with the best of success, and I submit them, having all confidence in the possibility of successfully interrupting the natural course of idiopathic fever.

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HEMORRHAGIC MALARIAL FEVER.

During the last six or seven years, the attention of the southern physicians has been called to a new and fatal variety of malarial fever,—I allude to that serious form of disease commonly known as hemorrhagic malarial fever, sometimes called icterode pernicis fever, malarial hematuria, etc. This is a remittent fever of a malignant character, generally following repeated attacks of intermittent fever, or assailing those who have been exposed to malarial influences; occurring (as far as my observation extends) only during the latter part of summer and fall, and seems to be peculiar to the Southern States.

It is to be regretted that so much confusion and difference of opinion exists among writers in regard to this fearful form of fever; we find nearly every one who has written on the subject giving it a different name—one in accordance with his peculiar views of its pathology—and they differ still more widely in the matter of treatment; but all agree that the cause is undoubtedly malarial toxemia.

Now it may be that the manifestations and complications of this fever, as it occurs in different localities and under different circumstances, may require different measures of treatment to suit individual cases; but I have seen it on the high lands of western Arkansas and in the low malarious valley of White and Arkansas Rivers, and have found that the symptoms, character, course, and result were much the same. This having been my experience, I fear that the disease proper is often overlooked, and the complications only regarded as of importance in the adoption of a plan of treatment. When this is the case our efforts to relieve our patients will necessarily prove unsuccessful, for our remedies will be misapplied, and will fail to bring about the results that we desire they should.

The first symptom that characterizes this disease is a chill of the congestive type, marked by coldness of the surface and great internal heat. There is much anxiety and irregular sighing and respiration, which are soon followed by fever with its usual concomitants. The pulse is full at first, but not so frequent as in common remittent fever. During the first paroxysm, the symptoms that distinguish this from all other fevers generally make their appearance: Hematuria, jaundiced skin, and vomiting, apparently without effort, of a dark "grumous" fluid. These symptoms are present at some period in all cases. The bowels are usually constipated, tongue at first a straw color, which gradually deepens until a yellowish brown coat covers the whole organ; pain in the head and back; after a time, from eight to twelve hours, there is an abatement of all symptoms except nausea and vomiting. From this the patient is hardly ever free until the paroxysms are broken up. If this is not done in the first remission, we have a repetition of all that has been described with increased violence in addition, besides often harrassing hiccough, some confusion of thought amounting almost to delirium, heavy sighing, countenance dull and gloomy; but the patient is anxious and alarmed when aroused.

There are some features in this disease that deserve particular attention. The remissions are irregular and sometimes ill-defined; but when the hot stage does pass off there is no perspiration. Pain in the head at first is generally slight—often entirely absent; pain in the back, in the region of the kidneys, is very severe and incessant; great thirst; stomach irritable with vomiting of large quantities of dark fluid almost without straining or effort. The discharges from the bowels, 'when moved spontaneously or by medicine, are of a dark "tarry looking substance." The color of the skin in a greenish yellow or "bronze." This symptom is generally developed very suddenly, the skin may be perfectly clear one hour and bronzed the next.

These are the principal characteristic symptoms of hemorrhagic malarial fever; other phenomena presented in the fever belong rather to individual cases, and may often be seen in malarious fevers of all varieties. The question of hemorrhage in this disease is one of great importance on account of the difference of opinion which have been, and are likely to be entertained on the subject.

Some have denominated it icteroid intermittent fever, doubting the existence of blood in the dark discharge from the urinary organs and stomach, but consider it a distinct variety of malarial fever from the deep yellow color of the skin and sudden loss of vitality. Others have not acknowledged gastric hemorrhage, but have pronounced it a malarial hematuria; but my experience has convinced me that those who recognize the power of malarial cachexy to induce a genuine hemorrhagic diathesis, have given this fever the proper name, "Hemorrhagic malarial fever."

It is true hemorrhages are not so commonly seen in malarial fever as in typhoid and yellow fever, but do occur frequently; and certainly the same cause must exist; weakened capillary walls and changed condition of the blood, and of course bleeding may occur from any surface. It is not reasonable that in this fever, when continued emesis constitutes one of the principal symptoms, that hemorrhage would avoid the stomach and assail the urinary organs in every case. The icteroid symptom may be accounted for as in common jaundice, non-removal of biliary coloring matter from the blood.

The diagnosis I have never regarded as difficult. The occurrence of hematuria, black vomit, and jaundiced skin distinguish it from bilious intermittent fever. From yellow fever it is distinguished by the remissions and prevalence in localities where yellow fever was never known to visit.

This is a very dangerous disease. From what I have learned from southern practitioners, through the journals and otherwise, and from my own observation, nearly one-half die; nor does the percentage of mortality seem to be much on the decrease.

I will not attempt to discuss the various plans of treatment recommended by different writers, but will merely suggest what has seemed to me to be the most proper and successful. I prescribe small but frequent doses of calomel with a view to quiet the stomach and for its purgative effect. I follow it with saline laxatives until the bowels have been well purged. I permit the patient to have a reasonable amount of ice. Apply a large mustard cataplasm over the stomach and liver. (I have seen no benefit derived from blisters, which may do harm by interfering in some way with the urinary organ.) The hematuria is generally easily controled by astringents, but I think there is often great danger in their administration for that purpose. I would prefer in a great majority of cases to let the hematuria alone, and give diuretics, as it will cease as soon as the morbid condition that induced it has been broken up by quinine. Upon this agent we must rely; without it but few if any patients would recover. I have seen patients having a dark yellow skin, with hematuria, vomiting a dark fluid, after having the bowels well acted upon by calomel and saline cathartics, take sixty grains of quinine by injection during the remission which prevented the recurrence of another paroxysm—the patient recovering. I have seen benefit derived from sponging the patient with warm water made alkaline.

Tonics, beef-tea, and other nourishment are demanded and should be given as early as the stomach will receive and retain them. The tonic most highly recommended is a combination of iron with the mineral acids and quinine.

TUMOURS OF THE UPPER JAW.

By D. D. BRAMBLE, M. D., Prof. of Surgery in the Cincinnati
College of Medicine and Surgery.

Under the title of tumours are comprised many diseases, to which both sexes of all ages, and nearly every part of the body are liable. They possess many characters in common, yet at the same time they have important practical distinctions among themselves. These growths deviate from their parent structure, and contribute nothing to the performance of its function. Their mode of life is peculiar to themselves; they increase or diminish in size independently of the forces which govern the parts from which they deviate.

Tumours occur for the most part singly in the body, but sometimes are multiple. They are divided into two great classes, the innocent and the malignant. The one term expresses harmlessness of the tumour when left, and curability of it when excised; the other the opposite of these propositions.

We meet with tumours of the upper jaw, serious in character and of large size, involving great portions of the bone. Caution should be exercised not to mistake swellings of the upper jaw, inflammation and abscess of the antrum, for solid tumours. Unfortunately, the antrum is subject to malignant affections, occurring at all periods, both in young subjects and those advanced in life. The patient complains of an aching in the jaws, and of swelling, which, perhaps, is supposed to arise from a decayed tooth. The jaw swells out very rapidly, and then, after a short time, the nostril becomes obstructed, and there is discharge from it. The walls of the antrum are expanded, soft, and pulpy. Upon examination, we find a tumour filling up the whole cavity of the antrum.

The disease advances rapidly, and generally in a few weeks the tumour will have extended back to the thoat, interfering with deglutition. The bones become wasted from pressure; patient gradually loses his health, emaciates, bowels are affected from swallowing the putrid discharge from the ulcerated surface of the tumour; and he has occasional hemorrhage which reduces him in strength still farther. These malignant tumours of the antrum go on rapidly, and the patient usually dies very miserably, from the discharge and hemorrhage, within half a year of the commencement of the disease. Fortunately all tumours of the upper jaw are not of this character; the bone and the periosteum become involved; the disease sometimes commencing from accident, as a stroke on the face with some hard substance; sometimes appearing spontoneously, that is without any known cause.

These tumours are met with in all stages of their growth, and of various sizes. Their character is very different to the one described above. The tumor is limited, not involving all the neighboring parts, but goes on increasing very gradually. Growing year after year, at last it attains great bulk. The tumour feels hard and solid; the surface is very often lobulated; it is inconvenient from its size, yet it is not hurtful, and will not destroy the patient. The one tumour can scarcely be interfered with by a surgical operation with any propriety, while the other can be taken away safely and certainly.

Herewith we present a drawing representing the appearance of a tumor of the character just described, which has been in progress for several years, and has been removed once before, the history of which is as follows:

Miss J—, aged 42, stout, healthy, and of florid complexion, of a mixed sanguineous and lymphatic temperment. Can trace no hereditary predisposition to the complaint. Has always enjoyed good health. Dates the origin of the tumor four years back, and attributes it to no known cause; first observed a small lump at the lower border of the malar bone, and from that time the tumor gradually increased in size. In two years it attained the size of a quail egg. The family physician, on examination at this time, found the growth was very solid, similating exostosis, but as the case had made such slow progress, he advised non-interference. He saw the case three months later, when the tumor, without any apparent cause, had increased treble the size it was at the former examination. Whereupon he advised its removal, which was accordingly done, the wound healing in a reasonable time after contending with an attack of erysipelas; but it had not been well more than a week when it began to grow again, increasing in size very rapidly, so much so that in one year after, at the time we removed it, it weighed twelve ounces. The shape of the tumour was, at this time, irregular and slightly lobulated, about six inches long by three and a half inches in depth, occupying the whole side of the cheek, and extending under the lobe of the ear as well as over-lapping it. Forwards it extended nearly to the angle of the mouth, and backwards about eight inches and a half. The integument was natural over the greater part of it, though the most prominent portion was rather reddish, and enlarged blood-vessels ran over its surface; there was a superficial ulceration at the center. To the sensation of touch it was firm as if fibrous.

It did not give the patient much pain, except when it was injudiciously handled. It caused a great deal of disfigurement from its bulk and position on the face. Considering it benign, taking all things into consideration, and with the patient in good health, we deemed it advisable to remove the tumour.

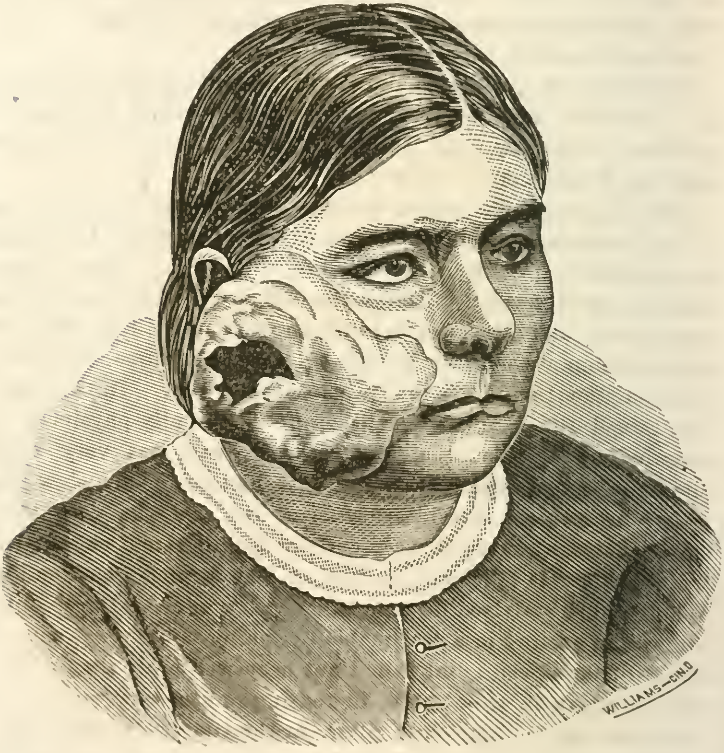

Fig. 1.

On the 16th of Oct., 1871, the patient being under the influence of chloroform, I made an incision across the transverse diameter of the tumour from below upwards; a second incision was made crossing the first at right angles at the center of the tumour, and the flaps were dissected back, laying bare the tumour, which I grasped and lifted from its bed, and quickly removed by a few strokes of the scalpel. The hemorrhage was restrained by pressure during the operation.

At the moment the tumour was broken loose from its bony attachment, respiration ceased, although no chloroform had been given for three minutes. For one and a half minutes there was no breathing, and life seemed nearly extinct for half an hour. We resorted to artificial respiration, applied heat and sinapisms to the lower extremities, ammonia to nostrils, and, as soon as she could swallow, administered ammonia and brandy, and bathed her with camphor spirits.

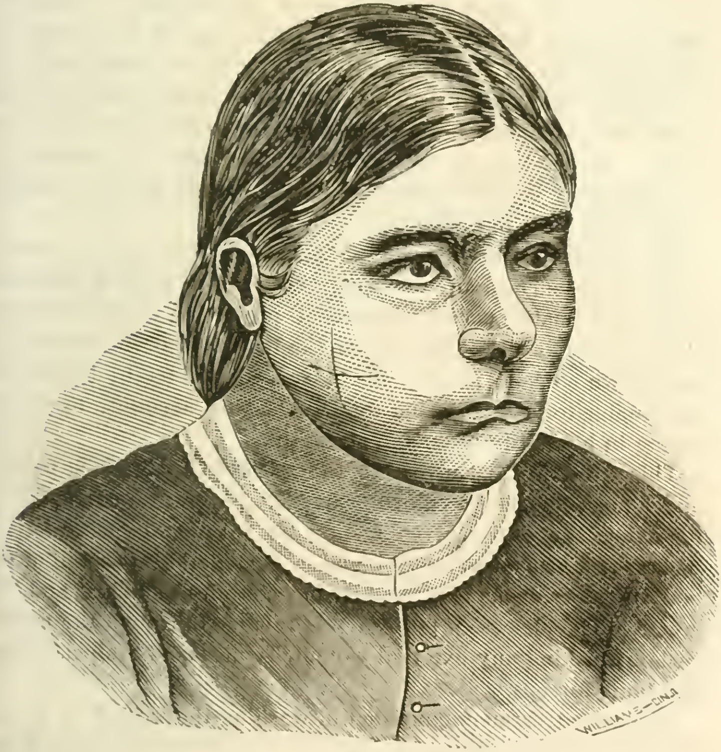

Fig. 2.

It was one hour and a half before we could resume the operation, and then without the use of chloroform. Removed all of the facial portion of malar bone as well as the entire zygomatic arch; also malar process of superior maxilla, making a communication with the antrum of Highmore. I carefully dissected and removed every vestige of the growth. The tumour itself weighed twelve ounces.

The flaps were then brought together with isinglass plaster, aided by interrupted sutures. Water dressings were applied. There were no untoward symptoms during the healing process. Six weeks from date of operation the wound was healed and pronounced perfectly well; and four months after the operation presented the appearance as shown in Fig. 2.

CASE II.—Fibrous tumour of upper jaw, of two years standing, in a young lady, aged 21, of nervous temperament. Healthy, never suffered from any disease. The rest of the family, of which there are five, are perfectly healthy, never having had any swellings or morbid growths about them. In this case, the first observable symptoms were looseness of teeth and soreness of gums. At the time of the operation, four teeth had fallen out, or rather they had been removed by the patient using her thumb and fingers for a tooth forcep.

The growth at this time had so increased in size on the anterior or external surface of alveolar process as to press against the cheek and make a very prominent projection on side of face. Downwards, in the space where the teeth had been removed, it had grown so as to prevent the closure of the teeth; hence, she was unable to masticate her food. On this account, has been failing in health, in flesh, and strength.

This growth I removed on the 24th of April, 1872, patient under the influence of chloroform. The operation consisted in removing the entire alveolar process between the first lateral incisor and last molar tooth, and a considerable portion of the body of superior maxilla, leaving in position the incisor and last molar. The diseased portion was removed through the mouth without making any external wound, by means of scalpel, chisel, and bone forceps.

The after treatment consisted in washing the wound by means of a syringe; then saturating cotton in a weak solution of carbolic acid and introducing it into the cavity. The first 36 hours succeeding the operation there was much vomiting, the result of the blood swallowed. Soreness was considerable for several days, but little suppuration. The case progressed very favorably; at the present writing is perfectly well, only leaving a large space to be filled up by artificial means, so as to prevent a falling in of the cheek..

PINUS CANADENSIS.

This is the *hemlock spruce* of the United States and Canada.

The tree is abundant in Canada, Nova Scotia, and the more northern parts of New England; and is found in the elevated and mountainous regions of the Middle States. Its bark abounds in the astringent principles, and is much used for tanning, in the northern parts of the United States.

Although it was supposed to contain tannic acid largely, yet only its pitch has heretofore been classed among the officinal preparations, forming the Emplastrum Picis Canadensis of the U. S. Pharmacopeia. The method of obtaining this is thus described in the U. S. Dispensatory:

"The tree contains much less juice than some other of the Pinacea; and very little flows from incisions made into its trunk. But in the trees which have attained their full growth, and are about or have begun to decay, the juice exudes spontaneously, and hardens upon the bark, in consequence of the partial evaporation or oxidation of its volatile oil. The bark thus encrusted is stripped from the tree, broken into pieces, and boiled in water. The pitch melts, rises to the surface, is skimmed off, and is still further purified by a second boiling in water."

Although, as we have stated, only the pitch has heretofore been employed as an officinal remedy, yet a decoction of the boughs has long been used in domestic practice in those regions where the tree grows; but thus prepared it is at best weaker by so much water as is used for boiling, than the hemlock in its natural state.

Medical men have long looked for, and greatly felt the need of, a concentration of the virtue known to exist in the hemlock, and not until lately has this want of the profession been supplied.

Mr. S. H. Kennedy, a gentleman who for years has been engaged extensively in the manufacture and sale of Hemlock Extract for tanners' use, had his attention repeatedly called to the fact that his workmen were in the habit of applying this impure extract to cuts and bruises, and for the relief of cutaneous diseases as well as diarrhea and dysentery, when finally there came under his own observation a case of hemorrhoids of twleve years' standing, which it wholly cured in less than three months; he then decided to do what he had long thought of doing—devote his whole time and attention to the task of preparing a perfectly pure extract of hemlock for medical purposes; and his determination was subsequently strengthened by the encouragement he received from certain eminent physicians of his acquaintance who saw still more clearly than he the great medicinal value of such a preparation. After many unsuccessful experiments, his efforts were finally rewarded by the discovery of a process by which the "Extract of Pinus Canadensis" is obtained of perfectly uniform strength and purity.

To show that this new and important discovery deserves a better fate than to be classed with the innumerable quack medicines which flood the country, we will quote from J. Marion Sims, M. D., of New York, than whom there is no better authority on subjects relating to the practice of his profession.

"I am so well satisfied of its value that I am anxious to call the attention of the profession to it. I have used it for about eight months in some affections of the rectum, vagina, and cervix uteri; I have used it, considerably diluted, as a vaginal wash, with great success; but I prefer to apply it to the os tincæ on cotton wool, either pure or mixed with glycerine, or glycerine and rose water. Thus applied, it should remain intact for two or three, or even four days, and then be renewed. In this way I have seen chronic granular vaginitis remedied in a few days that had resisted the ordinary remedies for weeks; and I have seen granular erosions, with leucorrhea, disappear very rapidly under its use. I have not time to do more than call the attention of my professional brethren to this new extract, which I am sure will soon be recognized as a valuable addition to our Materia Medica."

Dr. W. T. Walker, in the *Medical Record*, thus speaks of it:

"For the past six months I have used this extract in many cases affecting the mucous membranes, and in almost every case it has given entire satisfaction. In abrasion of the os and cervix uteri, when applied in its full strength by means of a pledget of cotton, I have found it far more satisfactory than tannin or iodine. In endometritis it has proved equally satisfactory. I have used it with perfect success in acute and chronic vaginitis, by applying it in its full strength every other day. I have also used it in several cases of gonorrhea, and must say that I vastly prefer it to the vaunted remedy of claret and tannin.

"It is certainly a most valuable astringent and tonic; and I doubt not that it will very soon have its place in our Materia Medica."

Combined with a little Tr. Opii. and diluted with water, it has been found highly serviceable in cases of chronic diarrhea and chronic dysentery, in which it speedily controlled the disease. In fact, in all diseases, where an astringent is indicated, it will be found a superior remedy, especially in gonorrhea.

ON THE DIAGNOSIS AND TREATMENT OF SCROFULOUS ANGINÆ.

Dr. E. Isambert, of Paris, writing in *The Practitioner* of these affections, calls attention to the limited space devoted to this subject in works on pathology, and the fact that their distinctive characteristics are not well appreciated; being frequently confounded with those of syphilitic, tuberculous, or malignant degenerations of the pharynx and larynx. It is, he says, before all chronic affections, the almost indolent, and is seldom attended with hypertrophy of the cervical glands. Strumous catarrhal anginæ has no very well-defined character; the folliculitis and the amygdalitis with which it is accompanied being distinguishable from analogous affections only by considering the general habit and constitution of the patient. Scrofulous ulcerations of the pharynx constitute, on the contrary, a pathological type which may be recognized. They are to be met with, according to their order of frequency: first, on the posterior surface of the pharynx; next, on the soft palate and its arches, seldom on the tonsils; on the palatal portion of the pharynx, and towards the Eustachian tube; lastly, towards the epiglottis, the arytenoid eminences, and the laryngeal infundiculum. They are almost indolent, and are not attended, in the great majority of cases, by inflammation of the cervical glands. This localization at the outset, the absence of all inflammatory and painful phenomena, and of any extension in the direction of the cervical glands, serve to distinguish them clearly enough from syphilitic ulcerations, which make their first appearance on the soft palate, are surrounded by a more extensive circle of inflammation, and are attended by greater pain and by inflammation of the cervical glands.

The appearance of the scrofulous ulcers is pretty similar to that of the slightly eroded syphilitic patches; but they do not present opaline or iridescent aspects, which in the mucous syphilitic patches form a marked contrast with the carmine color of the inflamed circle. The ulcerated patch of scrofula, though irregular and sinuous like that of syphilis, is more pallid and of a yellowish color, like that of subcutaneous areolar tissue. It is but slightly depressed, and presents a rugged surface, more or less covered with small eminences. It is surrounded by an inflammatory circle of small extent and slight thickness, not at all loosened, and blending in an insensible manner with the ulcerated surface. This border speedily resumes its normal aspect under the influence of local treatment. Whilst the syphilitic patches of the pharynx are well enough defined, and are bathed by abundant and limpid saliva, scrofulous ulcerations are covered by a very viscid and adherent muco-purulent or whittish pultaceous secretion. In the graver cases we may observe on the pharynx a dirty or earthy-gray coating, which covers all the surface and gives origin to a more or less offensive smell; and yellowish, acuminated pimples like small furuncles These strumous manifestations may make their appearance without being preceded by other scrofulous phenomena in the neighborhood.

However, the deformities and morbid adhesions of the soft palate and its arches, which are sometimes observed on the first examination of the patient, would show that previous outbreaks of the disease had taken place.

The iodo-mercurial treatment modifies pharyngeal syphilitic manifestations in a very short time when they are not too inveterate. The same mode of treatment makes scrofulous ulcerations worse, and if after a few days of this treatment the symptoms of a case of pharyngeal ulceration are not improved, a tonic and anti-scrofulous treatment should be resorted to.

When combated in time, and before the production of serious injuries to the pharynx, scrofulous ulcerations are easily cured. At the outset, amendment takes place rapidly; but the ulcers, after such changes, close very slowly, much more slowly, indeed, than syphilitic ulcers. They are then superseded by white cicatrices of a pearly aspect, set in small clusters, sometimes parallel to each other, and at other times radiating in all directions. As to the adhesions of the soft palate, it is only by the resort to surgical measures that we can hope to modify them.

Deafness supervening upon obliteration of the Eustachian tube seems to be beyond the reach of the resources of our art.

The previous history of the patient, and any concomitant phenomena, will be of great aid in forming a diagnosis.

Lupus of the face, or of the nasal fossæ, will generally have preceded pharyngeal lupus.

It is only when phthisis is far advanced, and pulmonary cavities exist, that we observe ulcerations of the posterior surface of the pharynx, and even then the ulcers are small and quite superficial.

Neither herpetism, arthritism, nor catarrhal anginæ can produce ulcers which we should be liable to confound with pharyngeal scrofula. It is hardly necessary to refer to pharyngo-laryngeal diphtheritis, whose course and pathological products are too special and well known to involve the diagnosis.

Scrofulous lesions present none of the neoplasms peculiar to cancer, the offensive smell of the latter aiding, also, in the formation of a diagnosis.

The treatment may be briefly summed up as follows:

Absence from mercurial remedies; or, where there exists a positive mixture of syphilis and scrofula, a careful employment of that treatment, alternating with considerable periods of rest, during which the iodide of potassium or of iron may be employed. Second, speedy employment of the general treatment of scrofula: cod-liver oil in large doses, iodide of iron, cinchona, wine, good food, out-of-door exercise, and sulphurous baths. Third, persevering employment of local treatment by means of the laryngeal sponge, tincture of iron, either pure or mixed with opium. The ethereal tincture of iodoform, chloride of zinc, or concentrated chromic acid, may be applied to the diseased surface.

Chromic acid is admirably borne by the mucous membrane of the mouth, pharynx, and even the larnyx, exerting a highly powerful action in œdema of the glottis, strongly astringing the membrane, and thus warding off the need for tracheotomy.

Perchloride of iron has been employed, especially in cases of bleeding ulcers.

Nitrate of silver does not seem to be of much benefit, unless when applied with the object of hastening the cicatrization when already in good progress.

Various powders may be blown upon the surface, especially iodoform mixed with lycopodium.

Local douches made with the irrigator may be very useful, and exert an anodyne action in certain cases.

In respect to atomized fluids, he considers their effects to be inefficient in such grave lesions.

The most important part of all is to form, as early as possible, a correct diagnosis, so as to institute a rational treatment, and avoid hesitation, loss of time, and, above all, weakening measures which are absolutely contra-indicated.—*The Medical Record.*

ON CONJUGAL ONANISM AND KINDRED SINS.

By William Goodell, M. D., Clinical Lecturer on the Diseases of Women and Children in the University of Pennsylvania.

Gentlemen,—Inasmuch as certain members of the "London Dialectical Society" have been poisoning the public mind with subtle arguments against "Over-Population and Large Families," I propose this morning to devote my hour to some subjects which are not strictly medical, and yet with salient medical aspects,—subjects in themselves vile and filthy, but which concern us as physicians. The wise son of Sirach has laid down the abstract truth that "the knowledge of wickedness is not wisdom;" and yet for the correct interpretation of disease, we must intrepidly search out their causes, whether moral or physical, however loathsome or impure they may be. Receive, then, these necessary supplements to your instruction in the attitude of true students; for to such the knowledge of immorality cannot be immoral.

Early in the practice of your profession, you will, I am sorry to say, find out that many of your patients, who should be the heads of large families, are practising detestable arts to avoid offspring. You will, on the other hand, be approached, perhaps indeed be hard pressed, by husbands, and, for that matter, by wives also, for some method of congress unattended with the risk of impregnation. You will also be consulted for the mental and bodily infirmiites resulting from these and other sexual sins. You must not, therefore, go out in the world ignorant of these evils, and consequently incompetent to grapple with them. It is, however, so hard a task to discuss such subjects in acceptable language, that I confess to some squeamishness, and would much rather refer you to suitable text-books. Unfortunately, although our land is flooded with a copious literature treating of the conjugal relations, with rare exceptions it panders to our worst instincts, and defiles with the slime of an impure fancy. Impudent quacks and men of battered reputations must not be your guides; far better is it for you to learn a new thrust of fence from a friendly foil, than from the stab of a foe.

My purpose is less to discuss the moral obliquity of these secret sins of the community than to show the resulting disorders. Yet I shall not limit myself to the one point of view, for the conjugal relation is twofold in its nature: it has a moral as well as a physical expression, but so interwoven that it is hardly possible formally to dissociate them. Nor would it be wise for a physician so to do; for who, so well as he, can determine how far a disturbance in the one will affect the other? Moreover, so irreparable is the moral and physical degradation resulting from these vicious sexual relations, so damaging are they to good health and to good morals, so fatal to national prosperity, that I cannot go far astray in assaulting them with every available weapon.

You have all had a religious training and respect the teachings of the Bible; let us see what light they throw upon the conjugal relation. The first words addressed by God to our first parents conveyed the following blessing and command: "And God blessed them, and God said unto them, Be fruitful, and multiply, and replenish the earth." The same blessing and command, in precisely the same words, were twice given to Noah. Abraham and Ishmael received the same blessing, and so did Isaac, thrice in one chapter. Laban's household sent away their sister Rebekah with the same blessing. "Give me children, or else I die," was the cry of Rachel. Jacob called his offspring "the children which God hath *graciously* given thy servant;" and the same patriarch, when dying, raised himself upon his staff in order with greater solemnity to invoke upon his beloved son Joseph "blessings of the breasts and of the womb." The Psalmist declares that "children are an heritage of the Lord; and the fruit of the womb is his reward;" and in Exodus we read that if a man "take him another wife, her food, her raiment, and her *duty of marriage* shall he not diminish." Throughout the Old Testament you will find that fruitfulness was regarded by Jew and Gentile as the greatest of earthly blessings, and that as such it was the reward of the righteous, and as such it was withheld from the wicked. How a profanation of this blessing was regarded by God you all know from the history of Onan, who was slain for resorting to one of the "preventive measures" in vogue at the present day. Again, in the New Testament we find St. Paul giving the following advice to the married Christians at Corinth: "Defraud ye not one the other, . . that Satan tempt you not for your incontinency. Let the husband render unto the wife due benevolence; and likewise also the wife unto the husband," etc. I have not the time to quote all that the apostle says upon this subject; but, mind you, this advice was given in troublous and persecuting times; times in which the temptation was great to prevent the increase of families; times to which the words of our Saviour were especially applicable: "Woe unto them who are with child, and to them that give suck in those days."

To these scriptural precepts and blessings you may perhaps object that they were designed for special purposes, and that, as such, they cannot concern the present generation of men. While unwilling to admit this, I reply that there is a natural religion as well as a revealed religion: the one, God's book; the other, Nature's,—a "Second Bible," as Bacon happily terms it. You have heard what the one enjoins; now listen to the teachings of the other. Let me turn to our Case-Book, and read out the history of one of our clinical patients. Some of you have seen her in my private room, but, for obvious reasons, I have not brought her before the assembled class.

"A. B., aged 30, married ten years ago, has had two children, one of them dying shortly after birth. Six years ago she and her husband came to this country and opened a small store. She was at that time in robust health, 'very happy,' and cheerfully waited upon their customers. For no assignable reason, her health soon began to fail, and six weeks ago she came for advice in a truly pitiable plight. To use her own language, she was 'very weak and miserable;' 'crying all the time;' 'cannot remember anything for ten minutes;' forgets the price of goods in her husband's store; was 'constantly mislaying needful articles, and making mistakes in making change.' She was 'very suspicious,' fancied 'that everybody was against her and talking about her,' and confessed to being extremely jealous of her husband. In addition to these mental disturbances, she eructates large quantities of wind, is obstinately costive, has violent palpitations of the heart, and cannot go up one flight of stairs without getting out of breath. She often staggers, loses consciousness, and sometimes falls from vertigo; is annoyed by a persistent *globus hystericus*, and has no appetite whatever. The catamenia appear every three weeks, are abundant but unaccompanied with pain. She has, however, a constant pain in the sacral and in the left infra-mammary region; also a frequent desire to pass water, and much 'bearing down' of all the pelvic organs."

Without wearying you with every detail, in one word, the subjective symptoms of uterine disease which she presented were more numerous and more marked than I had ever before seen in one patient. In making a vaginal examination—to which she reluctantly submitted—I was struck with the excessive sensitiveness of her tissues, and with the uncontrollable excitement under which she labored,—symptoms hitherto in my experience limited to unmarried women addicted to self-abuse. I found the vagina crimson and hot, the womb tender to the touch, intensely congested, somewhat prolapsed, and in the first degree of retroflexion: The sound, passing through a patulous internal os, caused much pain at the fundus, and a slight hemorrhage upon its withdrawal. The *os tincæ* was surrounded by a collar of erosion, and plugged with the characteristic glairy secretion. Finally, she flinched from any pressure, however light, over each ovarian region. The significance of these symptoms I explained to her, but I need not to you.

She then took me aside, and, unsolicited, told me her history. Being in straightened circumstances upon their arrival in this country, and withal anxious to lay by money, she and her husband had agreed to have no more children. With this view, she had submitted to the following fraudulent and one-sided expedient: at the height of the orgasm the husband withdraws from her person, and thus commits the very crime for which Onan was punished with death. For six years such incomplete coitions had been practiced, usually as often as five times, and never less frequently than three times, a week. She had at first attributed her ill health to change of climate, but quite recently had begun to suspect its true cause from an unexpected improvement in all her symptoms during the casual absence of her husband on business.

Prompted by this suspicion, she came to consult me as to its correctness, and actually, in case it was confirmed, to learn from me some other preventive method of congress. I explained to her the sinfulness of her conduct, and urged her to receive the approaches of her husbond in a normal way, as otherwise nothing could be done for her. This, however, she flatly refused to do, saying she would much prefer a separation or even a divorce from him. Upon inquiry, I learned that her "husband was not the man he used to be:" that he was morose and dyspeptic, complaining much of general weakness and loss of appetite. Two weeks later, she came with much glee to say that by a mutual agreement this incomplete act of coition was in future to be limited to twice a week, and that she was now ready for treatment. Whereupon I refused to have anything to do with her; and I have not seen her since.

You have heard, gentlemen, this sad history,—the history of a woman whose health is shattered, whose morals are perverted, whose mind is verging toward insanity. Now, what physical law of her being, what moral obligation, has been broken? Why has Nature been so resentful, and why these fierce reprisals? These are questions which press for an answer.

The sexual instinct has been given to man for the perpetuation of his species; but, in order to refine this gift and to set limits to its abuse, it has been wisely ordered that a purely intellectual quality—that of love—should find its most passionate expression in the gratification of this instinct. Dissociate the one from the other, and man sinks below the level of a brute. Destroy the reciprocity of the union, and marriage is no longer an equal partnership, but a sensual usurpation on the one side and a loathing submission on the other. Consider the moral effects of such shameful maneuvres: wedlock lapses into licentiousness; the wife is degraded into a mistress; love and affection change into aversion and hate. Without suffering some penalty, man cannot disturb the conditions of his well-being or trespass beyond its limitations. Let him traverse her physical laws, and Nature exacts a forfeit; dare he violate his moral obligations, an offended Deity stands ready to avenge them. That this law is immutable, witness, from the history read to you, the estrangement between the husband and wife; witness his ill health and ill temper, and the wreck of body and mind to which she has been reduced.

The husband suffers mentally, because no *man* can behave in so unmanly a way without a keen sense of self-abasement, without being stung by the chastisement of remorse. Dishonor the body, the temple of the soul, and you dishonor the soul. Again, by this cowardly recoil, his enjoyment in the act is so blunted that he is tempted to seek elsewhere for those pleasures which are denied him at home. Further, he suffers physically, because, although he passes through the crisis of the sexual act and completes it in that sense, yet, owing to his withdrawal from the person of his wife just before the moment of ejaculation, this acme of the orgasm, by the lack of the normal and necessary adjuvant—viz., the rugous and constringing vagina—is not sufficiently prolonged to wholly empty the *vasa deferentia.* Enough of the semen remains behind to tease his organs and to kindle in him desires too importunate to tolerate any great self-control. He is thus goaded on to such sexual excesses as no brain nor brawn can long support; for a constant drain on the life-giving fluid implies a constant expenditure of nerve-force. Early exhaustion and premature decrepitude will inevitable ensue if this practice of "conjugal onanism" is persisted in. Nor is this name a misnomer; for there is no essential difference between this habit and that of masturbation. Both injure in precisely the same way, and for precisely the same reasons. It does, indeed, seem to be the law of Nature that man must suffer the punishment of the onanist if he parts with the "seed of another life" in any other way than in that by which it tends to become fruitful.

The wife suffers the most, because she both sins and is sinned against. She sins, because she shirks those responsibilities for which she was created. She is sinned against, because she is defrauded of her rights. Lawful congress completely performed so far satisfies an imperious instinct, that attendant local congestions are at once relieved, and to great nervous excitement succeeds a calm repose of body and mind. On the other hand, conjugal onanism provokes in her desires which keenly solicit that very gratification which is denied by the nature of the act. The excessive stimulation of the whole reproductive apparatus remains unappeased. A nervous super-excitation continues, which keeps up, as in our patient, a sexual excitement and a hyperæsthesia of the parts. By ferfeiting her conjugal rights, she does not reach that timely conjuncture which loosens the tension of the coarctive muscles of her erectile tissues. Hence the congestive orgasm of the vagina, uterus, fallopian tubes, and of the ovaries, does not at once pass away, but persists for some time,—perhaps is not wholly effaced before another incomplete coition brings a fresh instalment. Thus arise engorgements, erosions, and displacements of the uterus, and inflammation of its appendages, accompanied, of course, by all those protean mental and physical manifestations which I have so often pointed out to you. She takes distorted views of life and of the marriage relation, and harbors resentment against her husband as the author of all her ills.

But we have not yet done with the train of evils. The uterine, ovarian, and vaginal plexus of veins inosculate freely with the hemorrhoidal vessels, and consequently with the *venæ portarum.* Hence the turgescence of the one group of blood-vessels leads to engorgement of the other, and the persistent congestion of the intra-pelvic veins determines portal obstruction, and *vice versa*. The absence of valves in all these vessels, and the erectile structure of the reproductive organs, favor this turgescence. As a consequence, functional derangements of the liver are commonly associated with uterine disease. No gynæcologist has failed to observe the alternate relation of cause and effect between these two conditions. To this interdependence may we refer the obstinate costiveness, the vertigo, the loss of appetite, the dyspeptic melancholy, and the suspicious nature of our patient.

Again,—for the ill effect of such practices accumulate,—the very barrenness aimed at by these criminal expedients is in itself a source of disease. In sterile woman the absence of pregnancy prevents a break in the constantly-recurring catamania, and the physiological congestion of the womb, by ceaseless repetition, is liable to become pathological. Add to this the unrelieved congestions which arise from incomplete intercourse, and a very prolific source of uterine and hepatic disorders is at once made manifest.

I have so lately warned you against the disorders arising from excessive coitus, even when normally performed, and more especially from that indulged in during the fatigue and discomforts of the honey-moon journey, so often the starting point of uterine disease, that it is needless for me to recur to that subject.

I wish, however, in this connection, to call your attention to another source of sexual trouble, for which your advice will be sought. Either from undue ardor on the part of the husband, or from the too frigid nature of the wife, the sexual crisis with him is over before hers is reached. Such misadventures are productive not only of unhappiness but also of disease. Here, as in conjugal onanism, the female reproductive organs are kept in a state of congestion, which is followed by like ill results, the difference being only in degree and not in kind. For this lack of reciprocation—not, however, fatal to impregnation—you will counsel to the husband the practice of some self-denial as regards the frequency of congress, and greater self control during the act, together with a recourse to such venial promptings as a warm and honorable affection may suggest.

But, to return from a digression, there are other artifices—nay, even equipments borrowed from the brothel,—for the purpose of avoiding conception, which may well alarm publicists and statesmen. For, vile as they are, they have received the open sanction of those English political economists who forget that crime and vice and human suffering in their land are due less to "over-population and large families" than to absenteeism, to the laws of primogeniture and entail, to the grasping avarice of the rich, and to the intemperance, ignorance, and shiftlessness of the poor.* All these expedients operate by directly preventing the access of the spermotozoa to the uterine cavity, by destroying them, or by washing them away; but they are all hurtful equally to mind and to body. If it is hazardous for an overheated stomach to receive a glass of iced water,—its natural and accustomed beverage,—how much more will it be to deluge the over-congested womb with such foreign fluids as cold or astringent injections! On the other hand, those mechanical contrivances for limiting the range of the spermatozoa so blunt the pleasure as to lead to unfaithfulness or to their disuse. Moreover, in common with other teachers, I am old fashioned enough to believe that pregnancy is a necessary condition to healthful and happy marriages; and, further, that coition is innocuous only when complete in both husband and wife, and when the germinal fluid bathes her reproductive organs. It is not always possible to trace the relation between cause and effect; some link in the chain of sequences often eludes our search. The *modus operandi* of many of our most common drugs is not known, and yet our confidence in them is not shaken, because the counterweight of our experience is greater. Therefore, for no other reason than that the common experience sanctions this postulate, I believe that the semen, aided of course by the general relaxation following the crisis, has a special property of allaying the congestive orgasm and the vascular turgescence of the venereal excitement.

For the limitation of families, some conscientious political economist recommended absolute abstinence. But, if the "nervous erethism" of long engagements is assigned by alienists as a common cause of insanity, and by physicians as a frequent source of uterine disturbance, what derangement of body and mind may not spring from this forced continence! Perhaps, however, we are wasting words on impossibilities. There is a wide-spread delusion, as old as the art of medicine itself, that intercourse after the tenth day following the cessation of the menses is not attended with the risk of impregnation. But ovulation is not necessarily menstruation; and he who constructs domestics time-tables or trusts to his almanac will find that accidents may happen in the best-regulated family.

There are in fact no harmless or available means for thwarting Nature's plain intention; for if they should not happen to injure the body, they assuredly will the mind. How immoral must be the effect when husband and wife meet, not "to endear each other,"—as Jeremy Taylor quaintly has it,—but to adjust accoutrements, to compound antidotes, and to consummate with pre-arranged precautions and cold-blooded calculations a union which for its perfect mental and physical fruition should be spontaneous and unrestrained! All these artifices soil the purity of thought, and degrade marriage into a carnal compact which regards a'one the necessities of the flesh.

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* Besides the causes here enumerated, other unsuspected correlations undoubtedly exist, for Social Science has hardly yet reached to the dignity of a science. Thus far, it consists mainly of disjointed studies and isolated observations, which yet require the junctura callida of collation and generalization.

Such, then, are my views, upon these so-called "misery checks" and "common-sense measures;" and I feel that they cannot be gainsaid. I dare any political economist to show me one innocuous expedient whereby conception may be avoided. I challenge him to name a single preventive plan which will not do damage either to good health or to good morals. Even natural sterility is a curse: show me a house without children, and, ten to one, you show me an abode dreary in its loneliness, disturbed by jealousy or estrangement, and distasteful from wayward caprice or unlovable eccentricity. Depend upon it, gentlemen, there are no thornless by-paths by which man can skulk from his moral and physical obligations; no safe stratagems by which he can balk God's first blessing and first command. Therefore, as hygienists, if not as moralists; as physicians, if not as patriots; as guardians of the public health, if not as philanthropists, I charge you to frown upon such practices, and take a bold stand against them. Else, see to it that in the end you are not held to a strict account for the knowledge you have this day gained.—*Philadelphia Medical Times.*

NERVOUS OR SICK-HEADACHES.

Lecture delivered at Addenbrooke's Hospital, Cambridge, Eng.
By P. W. LATHAM, M. D., F.R.C.P.L., Physician to the Hospital.

GENTLEMEN: We have lately discharged from the hospital a young man, aged 17, who, during the short time he remained here, suffered no pain or uneasiness. He was somewhat anæmic, and of rather stunted growth, but he was sharper and more intelligent than the generality of his class. With these exceptions, there was nothing about his general condition which calls for remark. He had been troubled, however, with four slight attacks of what are variously called nervous headaches, sick-headaches, or bilious headaches; an affection which does not often come under our observation in the hospital, though I suspect that, if carefully inquired after, the percentage of patients liable to the disorder would not be found so small as is generally supposed to be the case. In private practice, however, the affection is by no means uncommon. It affects both males and females; and perhaps in a university town, owing to the large proportion of individuals of studious and sedentary habits, it may be more prevalent among males than in other places. At all events, it is a complaint which often comes under my notice; and in the forms to which I am going to refer, I believe much may be done to moderate the intensity and frequency of the attacks.

The symptoms accompanying some forms of this disorder have been detailed *ad vivum* by Sir John Herschel, the Astronomer Royal, Sir C. Wheatstone, Professor Dufour of Lausanne, and others; and in the *Philosophical Transactions* of 1870, p. 247, you will find an extremely interesting paper by Dr. Hubert Airy ("On a Distinct Form of Transient Hemiopsia"), wherein he faithfully and most graphically records his own experience of the affection, and quotes the descriptions which have been given by the above distinguished persons. With many of the comments contained in the paper I entirely agree; but there are some points upon which I can supplement the information there given; and my chief object in bringing the subject under your notice is with a view of trying to explain how the symptoms may be produced.

The headache is preceded for a variable period by certain disorders of sensation, the most striking of which is a transient disturbance of vision, which sometimes takes place. In some persons, the malady stops short here, and is not followed by headache; in others, the headache appears to be developed without any premonitory symptoms, until careful enquiry reveals the contrary. The complaint, then, has two stages: 1. The stage of disordered sensation; 2. The stage of headache, nausea, etc.

I will first consider the forms attended with disturbance of vision. Even this commences in different ways in different individuals, or even in the same individual. Here is Sir John Herschel's account: "I was sitting one morning very quietly at my breakfast table, doing nothing, and thinking of nothing, when I was startled by a singular shadowy appearance at the outside corner of the field of vision of the left eye. It gradually advanced into the field of view, and then appeared to be a pattern in straight-lined angular forms, very much in general aspect like the drawing of a fortification, with salient and re-entering angles, bastions, and raveling, with some suspicion of faint lines of color between the dark lines. The impression was very strong, equally so with the eyes open or closed; and it appeared to advance slowly from out of the corner till it spread all over the visual area, and passed across to the right side, where it disappeared. I cannot say how long it lasted, but it must have been a minute or two. I was a little alarmed, looking on it as the precursor of some disorder of the eyes; but no ill consequence followed. Several years afterwards, the same thing occurred again; and I recognized, not, indeed, the same precise form, but the same general character—the fortification-outline, the dark and bright lines, and the steady progressive advance from left to right. I have mentioned this to several persons, but have only met with one to whom it has occurred. This was a lady of my acquaintance, who assured me that she had often experienced a similar affection, and that it was always followed by a violent headache, which was not the case with me."

At a subsequent period (November 17th, 1869), he writes to Dr. Airy as follows: "Since I wrote to you, I have been very frequently visited with the phenomenon in a greater or less degree. . . . It always now begins with a small glimmer *near* the middle of the field of view, and spreads out."

In other cases the attack begins by inability to see the spot on which the eyes are fixed, while all around is clear and distinct as usual. The area obliterated soon increases, and is one-sided; so that, to the patient, if he be walking along the streets, his friends appear with only one eye each, or he sees one-half only of their faces. The names on signboards become half obliterated; and the patient is like Abernethy, who, when trying, after an accident, to read his own name, "could see as far as the *ne*, but could not see a bit of the *thy*." The edge of the part obliterated soon assumes the fortification-outline, this outline being faintly luminous; objects at the centre of vision become less completely obliterated, but a glimmering vibratory movement, somewhat resembling the undulations of heated air as seen above a hot stove, appears within the zigzag outline; and this movement gradually extends over the whole field of vision. This zigzag outline has been variously described to me. One patient stated that it appeared as though the zigzags on a Norman arch were slowly moving along the arch, whilst another set were slowly moving over them in an opposite direction; and the glimmering vibratory movement which filled up the field of vision, very closely resembled, he said, the appearance seen on looking through two pieces of gauze slowly vibrating in opposite directions.

I will now read you a few extracts from the account which Dr. Airy gives of his own sensations. The first attack came on when at school, the last morning before the holidays: "I noticed it first by being unable to see the 'A' in 'tan A,' when I looked at the top. At first, it looked just like the spot which you see after having looked at the sun, or some bright object. I thought it might be an eyelash in the way, or something of that sort; but I was soon undeceived when it began to increase. I then bethought me that it must be the same thing that —— suffered from, so I let it alone, knowing that it would go off in time, which it did, leaving a most terrible headache behind it, which is the worst part of it, the blindness itself giving no pain whatever. When it was at its height, it seemed like a fortified town, with bastions all around it, these bastions being colored most gorgeously. If I put my pen into the space where there was this dimness. I could not see it at all; I could not even distinguish the color of the ink at the end. All the interior of the fortification, so to speak, was boiling or rolling about in a most wonderful manner, as if it were some thick liquid all alive. It did not belong to one eye, but to both, the right eye having the most. . . . Since then, I have very frequently been revisited by this affection. . . . When this blind spot makes its appearance close to the centre of vision, as soon as it begins to spread and shows a serrated margin, it at once presents the irregular horseshoe shape, with one arm adherent to the sight-point and the other receding from it outward. The teeth of the adherent arm are small and fine; those of the receding arm grow larger and larger. But when the blind spot takes origin at some distance from the centre of vision, as it spreads it preserves its contour unbroken, stellate, nearly circular, until its margin nears the centre of vision; then the serration at the point nearest the centre shows irregularity, and a breach appears in the outline; one branch of the incomplete circle takes a smaller pattern of zigzag and recedes. . . . The climax is generally reached in twenty or twenty-five minutes from the first beginning; then the large arm, having overspread the margin of the field, begins to fade, and leaves the lower part to recover slowly from the storm. The small arm is the last to perish; it remains in strength while the large arm is dying away; but soon the outward spread carries it in turn to the upper margin of the field, and it there exhibits the same fervor that characterized the career of the larger end. The whole duration of the phenomenon is just half an hour, often with curious exactness. The sight feels somewhat dazed for ten or fifteen minutes after the final disappearance of the phenomenon. Throughout the earlier part of this visual derangement I feel no discomfort at all; my faculties are free to observe the phenomena closely and carefully. It is not till near the end, when the boiling is at its height, that the eyes feel oppressed, and the head has a presage that it is going to ache. The headache comes on gradually; it is not localized in any particular part; it lasts for five or six hours, or more, accompanied with slight nausea."

Sir C. Wheatstone says: "This evening I had a curious affection of vision. Whilst I was writing, characters near the centre of vision became invisible. Thus, on fixing my eyes on figure 6 in the group $4\frac{6}{7}$, 4 and 7 were completely obliterated. After a short time the spot became larger, spreading towards the left in both eyes until it occupied a large oval space. . . . The only difference between the phenomena, as they appear to me and as they are described by Dr. Airy, is that in my case they are always unaccompanied with color."

You will notice from these descriptions that there are different ways in which this stage commences; viz., either by a glimmering near the outside corner of the field of vision, or by a glimmering near the middle of the field of view, or by objects at or near this point becoming obliterated. Again, in some persons the phenomena are accompanied with color; in others this is not the case, the fortification outline only being somewhat luminous. In others, again, in slight attacks there is no color, but in the more marked ones colors are seen not only at the outline, but generally vibrating over the field of vision; and in still more decided attacks numerous stars are seen floating in all directions. Another very important point about these attacks is, that in perhaps from one-fourth to one-third of the cases during this glimmering stage, there is tingling in some portion of the body—the part is *asleep*. In a young female that I saw, the tingling affected one arm and the side of the tongue; and, curiously enough, both her sister and her father were affected in precisely the same way. The tingling was on the *same side* as that on which the glimmering in the eye began. In another case, the patient complained of a feeling of pricking and scratching on that side of the face corresponding with the glimmering. In others, speech or hearing may be affected. The Astronomer Royal (*Philos. Mag.* vol. xxx., p. 21) says: "In one attack on myself, which occurred while I was conversing with an acquaintance in a railway carriage, I soon became painfully sensible that I had not the usual command of speech—that my memory failed so much that I did not know what I had said or had attempted to say, and that I might be talking incoherently." In reference to another case, Dr. Airy says: "Sometimes the speech is affected and the memory at the same time; on one occasion the mouth was seen to be drawn to one side."

The last question I have to allude to about this vibrating stage is, Are both eyes equally affected? Dr. Airy thinks they are. Sir John Herschel says: "I have sometimes had an impression that *one eye only* was affected—the right eye being affected with the right-handed, and the left with the left-handed, spectrum; but I never could devise any means of coming to a conclusion as to this point, and on the whole I lean to the opinion that both eyes are concerned in either case." But a few months later he writes: "On the 16th ultimo, on waking, I found the 'fortification pattern' *certainly* in my left eye *only*, and much more vivid with the eye open and looking at paper than when closed. I think, for reasons which will be given when I come to explain the phenomena, that at all events at first and in slight attacks one eye only is affected, but that the tremor and boiling are so oppressive as nearly to extinguish the corresponding vision in the other." Now this disturbance of vision is often associated with a feeling of chilliness, cold hands and feet, etc.; it may last from five to thirty minutes or longer, and then be succeeded by the stage of headache, which shows itself as follows: When the vibratory movement is at its height, a little aching is felt in the head, on the side *opposite* to that on which the glimmering first appeared; it is slight at first, but gradually increases in intensity. Some persons have said that the sensation was as though a point in the temple were being bored with a gimlet, and the gimlet slowly increasing in size. The pain gradually spreads from this point, which may be covered with the finger, and pressure upon which affords relief, first over one side of the head, and then, but not always, extends to the other. As the headache increases, the ocular disturbance declines, nausea is felt; this increases with the headache; there are retching and vomiting, the latter sometimes, though rarely, giving relief; the head throbs; the slightest movement increases the pain; and any attempt to move from the recumbent posture increases the gastric uneasiness; the mouth feels clammy; the eyeballs ache, and are tender on pressure, one more so than the other; the pupils are rather contracted, and generally unequally so; the patient lies apparently more dead than alive; his face pale and the head hot. After a varying number of hours he is somewhat relieved by troubled sleep; he wakes up next morning free, perhaps, from headache, but he is listless; his brain is weary, and he feels as if he had undergone a hard mental struggle. There may be now an interval of a few days, weeks, or years, before the disorder again shows itself.

The headache varies much in character, degree, and duration. In some persons the pain is not localized in any particular spot, but seems generally diffused over the head; others have not noticed that there is more pain on one side of the head than the other, or that the aching radiates from one painful spot until their attention has been directed to the fact, and then they distinctly recognize it; others, again, have neither vomiting nor nausea; and lastly, the duration of the headache may be very short, or not extend more than two or three hours, or it may be entirely absent. The disorder may even stop short at the vibratory stage, the vision be restored, and no further inconvenience felt.

On the other hand, the headache may be, and in many individuals always is, developed without the ocular disturbance, but other sensations are substituted for it. The patient has a feeling of chilliness; the feet are cold, and there is mental depression; a dread of impending evil; he is restless and uneasy; "cannot quite tell," as he says, "what he would be at;" he has what is expressively called the "fidgets." This condition may continue half an hour or more, and then the slight boring piercing pain is felt in the head with which the aching begins, and the disorder runs its course as in the forms previously mentioned. In other cases, this feeling of depression or uneasiness lasts for several hours, the patient goes to bed, and in the early morning wakes with the headache fully developed.

I will now state the conditions under which this disorder shows itself. The great majority of persons who have come under my notice, suffering from the headache, were at the time more or less anæmic; there was a general want of tone—a relaxed condition of the muscular and the arterial systems, especially of the latter; the pulse being rather small and soft, often decidedly slow, but much accelerated on slight exertion or excitement. Even in those who were not anæmic and appeared robust, there was still this want of tone about the pulse. The sufferers possess what is called the nervous temperament; their brains are excitable; their senses acute, and their imaginations free. The attacks are induced by prolonged mental work, protracted mental excitement, or any intense strain on the feelings, such as grief, anxiety, passion, etc. Bodily fatigue, late hours, loss of sleep, the depression which follows over-excitement, a debauch, etc., are all predisposing causes; and it is curious that the attack is not generally developed during the paroxysms of mental excitement, but afterward, when the excitement has passed off, and the mental strain is somewhat lessened. Again, in females, the attacks are more frequent at or after the catamenial period. Now, it is to be observed that all these causes, and causes like to them, are of a depressing nature; exhausting the powers, and, therefore, lowering the tone of the system; putting it out of tune, disturbing the harmony in the functions, and, at the same time, exalting the susceptibility of the nervous system. What results? We possess, besides the cerebro-spinal system of nerves, a sympathetic nervous system, the ganglia of which can conduct, transfer, and radiate the effects of impressions, their power being controlled and regulated by the superior force in the cerebro-spinal centres. Let the general tone of the body be lowered, and with it the regulating power of the brain be impaired, then the conduction and radiation of impressions through the sympathetic ganglia are no longer interfered with, and, instead of tranquil, even, harmonious action in the various organs, as in perfect health, we have convulsive, excited, and painful movements. Let me say one word or two now with regard to the physiological action of the sympathetic nervous system. Its branches, constituting the so-called vasi-motor nerves, reach their ultimate destination supported on the large and small arteries, and control, in a remarkable manner, the action of the muscular coat of the these vessels. If the sympathetic nerves distributed to any part, as, for example, the neck of a rabbit, be divided, the small arteries of the corresponding side of the face, and of the lining membrane of the external ear become dilated, blood accumulates in them, and there is an elevation of temperature. The retina becomes more sensible to light; the pupil, in consequence of the action of the oculo-motor nerve on the circular fibres, contracts, and a flow of tears takes place. If the distal portion of the cut nerve be now irritated by galvanism for a minute or so, the vessels contract so as to diminish their calibre, the radial fibres of the iris contract, and dilatation of the pupil takes place.

I shall now proceed to apply this to the disorder we have been considering, and to show first of all that we have *contraction* of the vessels of the brain, and so a diminished supply of blood produced by excited action of the sympathetic; and that the exhaustion of the sympathetic following on this excitement causes the *dilatation* of the vessels and the headache.—*Medical World.*

MEDICAL GLEANINGS.

SULPHITE OF SODA IN VARIOLA.—Dr. Maurice Pflaum, of Pittsburg, Pa., comes to the conclusion that sulphite of soda, given at any time before the eruption has fully come out, will invariably cut short the disease, even more effectually than quinine does intermittent fever.

EXTRACT OF CONIUM IN INFLAMMATIOM OF THE BREAST.—M. Alstadter, of Pesth, strongly recommends small doses of extract of conium, repeated several times in the course of the day, for the resolution of inflammation of the breast, arising from stasis of the milk in puerperal women, and reports several cases in which striking advantage was obtained from its use. In all instances care should be taken to obtain as pure and active a specimen of the drug as possible.—*Weiner Med. Presse.*

CATHARTICS IN ALBUMINURIA—Dr. Moore, of Rochester, N. Y. (*Med. and Surg. Reporter*), read a paper before the Central New York Medical Society, in which the idea was enforced that albuminuria might remain as an organic disease for a considerable length of time; and during that time there was a remedy in sulphate of magnesia. A case was presented, in which the condition of albuminuria was removed by the cathartic treatment.

Drs. Benedict and Campbell gave histories of cases which had been managed according to Dr. Moore's plan, which afforded relief.

In answer to Dr. Mowris, whether the saline treatment had been successful after scarlet fever, Dr. Moore replied affirmatively.

DIGITALIS AN ANAPHRODISIAC—M. Gourvat, in the course of a paper published in the *Gaz. Med. de Paris*, on the action of digitalis, says: "When digitalis, or digitaline, is administered for some time to a man in full possession of sexual powers, these become gradually weakened, the propensities disappear, formation of the liquor seminis diminishes, and may at last cease altogether. The anaphrodisiac properties of the drug are the secret of its good effects in spermatorrhea. With women, digitalis or digitaline excities strong, regular, and intermittent uterine contractions, and controls metrorrhagia; hence digitalis is employed in producing abortions. (Tardieu.) It is probable that this drug acts as an anaphrodisiac in women, inducing, by long continued use, impotence and sterility, appearing also, in their cases, to interfere with the development of the Graafian vesicles; the propagation of species being thus doubly retarded.

ACONITE POISONING.—Dr. Stephen S. Keene, Providence, R. I. (*Boston Med. and Surg. Journal*), publishes a case of poisoning by the *external application* of aconite. For pain in right side of the face, he applied a portion of the following mixture to the affected part by rubbing with the fingers. ℞. Tinct. rad. aconiti, Tinct. opii, aa ʒ ss. M. One half hour afterwards he was seized with dizziness, nausea, dimness of sight, cephalalgia, pain in back, with sensation of coldness running along the spine, etc.

One hour after the application, the usual results from an overdose of aconite internally were exhibited. On examination, no abrasions were discovered on face, but the index finger of the right hand had a slight wound. The patient, male, aged forty-five, of good constitution, was treated with ammonia and chloroform, and at the end of forty-eight hours the symptoms subsided.

RACHITIS.—Dr. John S Parry, Accoucheur of the Philadelphia Hospital (*Am. Jour. Med. Sciences*) says that this affection is not confined to children who are inmates of hospitals; moreover, it is not among the poor alone that it is met with, notwithstanding Meigs and Pepper cannot corroborate the experience of Jenner, who has very often seen it among the children of the wealthy.

He has been irresistibly forced to the conclusion that this disease is scarcely less frequent in Philadelphia than it is in the large cities of Great Britian and the Continent of Europe, and that it should occupy just as important a place in our mortuary list as Hillier conceives that it should in those of the Registrar General of England. It is probably true that the disease is rarely congenital, but to that "it is never born with the children." (Boerhaave's 1487th aphorism), he believes all will have to admit is going too far. In view of recorded facts, rachitis is sometimes, though rarely, congenital, and may result in considerable deformity even before birth. It is not by any means rare during the early months of extra-uterine life. The writer has met with unequivocal bending of the ribs at six weeks after birth.

It is rare for it to begin after the end of the first year. He has seldom met with it in a child in whom no symptoms of the affection presented themselves before this time. A common source of error is the failure in discriminating between rachitis and mollities ossium. Bromfield, Stanley, Beylard, and Stewart have committed this error. Rachitis is probably more than any other disease of childhood, and even of infancy, while mollities ossium is an affection of adult life.—*Medical Record.*

CALABAR BEAN IN EPILEPSY.—*The Practitioner* contains an article by Dr. S. W. D. Williams, Superintendent of the Sussex Insane Asylum, on the use of the Calabar bean in Epilepsy. He selected twelve cases for experiment, giving the bean in a dose of one grain twice a day. On comparing the number of fits occurring during six months of this treatment with the number occurring during the previous six months, he found that in six of the twelve cases there was an average decrease of about 17 per cent., while in the other six there was an average increase of about 7 per cent. On the theory that the drug diminished reflex action, he examined carefully the cases which were benefited, with the hope of finding some eccentric irritation which might induce the attacks, but he failed to find anything satisfactory. He is therefore unable to tell, in advance, what cases are likely to be benefited by the bean. The peculiar pallor which sometimes precedes the attacks occurred as often in those cases which were not benefited as in those that were.

Increased action of the skin was observed, even when small doses were given. Catharsis or nausea was not observed, even when eight grains were given daily.

USE OF PHOSPHORUS IN CERTAIN DISEASES OF THE SKIN.—Dr. Eames reports a number of cases, in the *Dublin Journal of Medical Science*, in which he has found phorphorus serviceable, the most common form in which it was administered being a solution of the metalloid in oil. Ten grains of pure phorphorus were dissolved in an ounce of olive oil, the dose of this solution being from five to ten minims three times a day, after meals. It may also be dissolved in ether or given in the forms of pills; but the objections which are sometimes made to the disagreeable taste of these preparations may be entirely obviated by having the oily solution enclosed in capsules. Dr. Eames has found that the medicine thus given, in doses of one-tenth, one-twentieth, or one-thirtieth of a grain, is much less liable to produce dyspeptic derangements, and that disagreeable eructations are less frequent. The cases he reports include instances of severe acne indurata; lupus, scrofula-derma, psoriasis, pemphigus, etc. In many of the cases arsenic and a variety of other remedies had been tried in vain. The Doctor observed that phosphorus produces a coated tongue, not unlike the silvery tongue which follows the prolonged use of arsenic. Loss of appetite, mental depression, and bodily weakness are induced much earlier in some cases than in others, and are to be watched for whenever the drug is given. On the earliest appearance of dyspeptic symptoms, Dr. Eames discontinues the administration of the remedy and gives, instead, some one of the minerdl acids. The Doctor has not ascertained that any aphrodisiac effect is produced, though he has frequently inquired after it. Slight diaphoresis commonly attends the use of phosphorus. Diarrhea was observed in none of the cases.

The amount of urine was sometimes slightly increased, but examination failed to detect any variation from the healthy standard.—*The Medical Record.*

IODINE IN POST-PARTUM HEMORRHAGE.—Dr. Booth, of North Carolina, records a case of a woman in her tenth labor, who had experienced several dangerous attacks of flooding after her labors. In this, after six hours the child was born, and the after-birth was delivered naturally, and all went on well for three-quarters of an hour, at the expiration of which time the uterine tumor became large, soft, and flaccid, with other symptoms of hemorrhage. Friction was tried, the hand was introduced, the abdomen being pushed with the other, but without effect. Happening to have some solution of iodine and iodide of potash in glycerine, double the strength of the officinal tincture of iodine, Dr. Booth injected this into the uterus, diluted with about twelve times its bulk of water. Immediately the flooding ceased, and the patient did well afterward. Dr. Booth thinks that while astringent agents act in great measure by forming a coagulum, iodine acts directly on the mouths of the blood-vessels themselves.—*Vir. Clin. Rec.*

FEVER AND THE SEWERS.—The *Medical Press and Circular* of April 10th, contains the following: After all that was said at the time of the Prince of Wales's illness, the public will be glad to learn, on authority, that the men employed in the sewers are not only not carried off by fever, but appear singularly free from the ravages of that disease. At the investigation of Dr. Brewer, the Metropolitan Board of Works ordered a return on the subject, which has just been issued, and is quite conclusive.

Out of 5 inspectors employed, from twenty-three to forty-eight years, there has never been a case of fever. Out of 64 men employed in cleansing and flushing the northern sewers for periods varying up to thirty-four years, only 2 have had fever, and their cases were typhus.

Out of 47 men engaged in the sewer work in the southern sewers for periods varying from one to twenty-four years, there have been only 2 cases of fever, and these again typhus, and in one of these cases it is shown that the disease was contracted from the man's family. There are 36 penstock and flap-keepers who have been employed from one to fifty years. Of all these, only one has had any fever. He has been sixteen years at work, and had typhoid in 1862. There are some curious notes about these men. One of them has been at this work fifty years, and has not had one day's illness during the time. One lived twenty-five years in the sluice-house over the King's Scholar's Pond Sewer, but never had any fever. Another lived for fourteen years in Penstock house, over Outfall Sewer at Old Ford. Another lived thirty-two years in Great St. John's sluice-house. Another lived for thirty-five years in a house over Duffield sluice and enjoyed good health. Out of 54 men employed at the pumping stations there has been only one case of fever (typhoid).

At Crossness, out of 54 men engaged during the last six years, there has not been one case of typhus or typhoid. There have been 8 cases of ague, but these are of course due to the low marshy district, and they seem to have recovered rapidly. Out of 7 men employed in cleansing ventilators, oiling side entrances, gauges, etc., no case of fever has occurred, though one man has been at work twenty-three yerrs. Of 10 surveyors and chainmen in the engineer's office, not one has ever had typhoid fever, although they have been almost daily engaged in the sewers for periods of from one to twenty-four years.

These facts are very gratifying, and quite dispose of the allegation that the men in the sewers are decimated by fever. The statistics show, in fact, that fever is less prevalent among these men than the rest of the town population.

COLLOID DEGENERATION OF THE BRAIN IN GENERAL PARALYSIS.—(*Archih der deutschen Ges. fur Psychiatrie. The Journal of Psycholog. Med.*, April, 1872.) A summary of the treatise by Dr. Magnan, of Paris, is taken from the latter journal:

1. The disease, generally described as diffuse interstitial encephalitis, may be attended by the action, at circumscribed points, of a very powerful irritation, which results in an active proliferation of the elements of the neuroglia and of the vessel walls.

2. These proliferated cells become infiltrated by masses of colloid matter, instead of being transformed into connective tissue, as is usually the case. The neuclei are first attacked by this rapidly-increasing morbid product, then the cells, and last the tissue proper itself.

3. The colloid degeneration has certain peculiarities by which we are able to distinguish between it and other degenerations. The colloid mass appears as a hyaline substance; is, however, only slightly transparent, showing at certain points a feeble bluish reflection. In the smaller deposits it appears in the form of little regular heaps which present more or less the appearance of healthy cells, or of masses of broken-down cells. When the colloid matter is present in larger quantity, and when several of the little groups have coalesced, it appears as an irregular mass marked by deep furrows.

The colloid matter is insoluble in alcohol, ether, and chloroform; in strong acetic acid it becomes pale, and gradually dissolves. Ammoniated tincture of carmine with potassa tinges it very rapidly. Tincture of iodine has no effect upon it, either with or without sulphuric acid. No change occurs upon the addition of hydrochloric acid. The mass is softened, but does not dissolve in weak, watery solutions of potassa and soda. Warm fluids dissolve the mass, their action being promoted by the addition of potassa and soda.

It is, consequently, not fatty, because it is colored by carmine, and is insoluble in ether and chloroform, It is not inorganic, because hydrochloric acid has no effect upon it. It differs from corpora amylacea, in that it is unaffected by tincture of iodine, and from amyloid degeneration, in that it dissolves in strong acetic acid; cold solutions of potassa and soda have no effect upon it, and there is no reaction with iodine and sulphuric acid, peculiarities which characterize amyloid degeneration. (*Vide Etudes sur la Degenerescence amyloide, par* Hayem.)

4. From its evolution and course, colloid degeneration might be regarded as a product of diffuse interstitial encephalitis; but its rarity, and its circumscribed localization upon the one hand, together with its individual characteristics when it has attained to its highest point of development upon the other, show it to be an altogether accessory lesion of general paralysis.

HYPODERMIC INJECTION OF ERGOTIN IN HEMOPTYSIS.—Dr. C. Currie Ritchie, of Manchester, England, quoted in the *Practitioner*, has had remarkable success in the treatment of pulmonary hemorrhage by this means. Reflecting on the action of ergot in contracting the muscular fibres, and thus lessening the calibre of the bloodvessels and diminishing the volume of blood, and taking in view its therapeutic actiot in aneurism, he inferred that it would be a powerful agent in producing hemostasis and arresting hemorrhage. In eight cases of hemoptysis, he used the injection with uniform success, the blood ceasing to flow after a few minutes. The solution employed consisted of three grains of ergotin dissolved in equal parts of glycerine and rectified spirits. Very little local irritation was produced by it, though the solution in distilled water proved highly irritating. —*Pacific Med. and Surg. Journal*,

Book Notices.

A TREATISE ON THE DISEASES OF INFANCY AND CHILDHOOD. Second Edition. enlarged, and thoroughly revised. By J. LEWIS SMITH, M. D., Curator to the Nursery and Child's Hospital. New York, etc. etc. Philadelphia: Henry C. Lea. Cincinnati: R. Clarke & Co. 8vo. pp. 841. 1872.

This very excellent work has met with so favorable a reception from the profession that it has now reached a second edition. Although it is not evidence *per se* that a work *is not* a good one when it is permitted to lie on the publisher's shelves unsold, yet it is pretty good evidence that *it is* a good one when it meets with a ready demand. This seems to have met with the approval of the profession; and that speaks better for it than any thing we can say.

In this edition, nearly twenty additional diseases have been treated ot, among which may be named Diseases Incidental to Birth, Rachitis, Tuberculosis, Scrofula, Intermittent, Remittent, and Typhoid Fevers, Chorea, and the various forms of Paralysis. Many new formulæ, which experience has shown to be useful, have been introduced; portions of the text, of a less practical nature, have been condensed; and other portions, especially those relating to pathological histology, have been rewritten to correspond with recent discoveries.

A TREATISE ON DISEASES OF THE BONES. By THOMAS M. MARKOE, M. D., Prof. of Surgery in the College of Physicians and Surgeons, N. Y., etc. etc. New York: D. Appleton & Co. Cincinnati: R. Clark & Co. 1872. 8vo. pp. 416.

The work which the author offers to his professional brethren contains the substance of the lectures which he delivered during the past twelve years, at the College of Physicians and Surgeons of New York. He does not claim for it to be a complete compendium of all that is known on the subjects of which it treats, but rather the leadings of his own studies and observations, dwelling more on those branches where he had seen and studied most.

The work before us is far better adapted to the general practitioner of medicine and surgery than a more complete and learned one. For although it is not a compendium of all that is known on the subjects of which it treats, as the author states, yet it is quite full in its details, and presents all that is practicable. It is probable that if it embodied more it would be at the expense of its usefulness to those of the profession for whom it is more particularly designed. Knowledge that is not available is only of interest to a comparatively few.

Besides having an Introduction, the work is divided into three parts. Part I. has twelve chapters devoted to the Diseases of Bones; and here we have treated hypertrophy and atrophy of bone, inflammation and suppuration of bone, mollities ossium, caries, necrosis, etc. etc. Part II. has six chapters, in which is discussed Tumors of Bones, such as cartilaginous tumors, osseous tumors, myeloid tumors, tumors of the jaws, etc. etc. Part III. has seven chapters devoted to Malignant Diseases of Bone.

The work is printed on fine tinted paper, and in its execution reflects great credit upon its publishers.

LECTURES ON AURAL CATARRH; OR THE COMMONEST FORMS OF DEAFNESS AND THEIR CURE. By PETER ALLEN, M. D., Fellow of the Royal College of Surgeons, Edinburg, etc. etc. New York: Wm. Wood & Co. Cincinnati: R. Clarke & Co. 12mo. pp. 275. 1872.

The lectures embodied in this work were mostly delivered at St. Mary's Hospital. While it may not be an exhaustive treatise, as is stated, yet upon glancing over it we would presume it covered the ground pretty well, and contained all that would be of practical interest to the general practitioner.

Aural diseases are of very frequent occurrence, and yet very few physicians are capable of their intelligent treatment. This is not as it should be. A class of diseases that is liable to destroy one of the most important of the five senses, should have a lively interest taken in it. What better, then, can a physician do than to possess himself of a little work like Dr. Allen's, in which the commonest forms of deafness and their cure are treated of in the familiar manner of the lecture room?

The work has a number of drawings illustrating the anatomy of parts and descriptive of instruments.

Editorial.

PROFS. D. D. BRAMBLE and A. J MILES will attend the meeting of the Ohio State Medical Society at Portsmouth, and either one of them will receive subscriptions for the MEDICAL NEWS. Price $1.50 a year.

THE NEW BUILDING OF THE CINCINNATI COLLEGE OF MEDICINE AND SURGERY.—The work of remodeling the new building which has been purchased by a number of the Faculty of this college for their institution, will be commenced soon; and it is expected to be completed by or before the middle of September. The architect has already drawn up the plans: and, from an examination of them, we feel assured that the alumni and friends of the school generally will feel proud of the new quarters. We cannot imagine what more could be desired in a medical college building.

On the first floor ot the building will be a large amphitheatre, capable of accommodating as large a class of students as ever assembled in Cincinnati. On the third floor there will be another large lecture room, running the whole length of the building. This second lecture room being situated high, and well lighted and well ventilated—which also the lower one will be — will be a particularly beautiful one. The second floor will be occupied by a museum, faculty room, etc. At the back end of the building, on a level with the second floor, will be the dissecting room, which will be of good capacity, and well ventilated.

But we do not now propose to give a detailed description of the new building as it will be when completed. Friends can, however, congratulate themselves that the college, in time to come, will have quarters worthy of it. It has been a long time without them, but it is now about to realize them.

All obstacles in the way of the prosperity of the school having been gotten rid of, the present faculty intend to spare no effort to maintain it of the very highest rank. They have certainly set out well; and when we recollect what has been accomplished by their energetic efforts, we cannot help believing they will realize their highest expectations.

JEFFERSON MEDICAL COLLEGE OF PHILADELPHIA.—This institution, we learn, has graduated, during the period of its existence as an educational institution, six thousand and fifty-four medical students. Of this large number of graduates, there are very many facts that it would be interesting to know, but which, of course, it would be quite impossible to find out.

THE CLINIC.—The inquiries we made in our May issue as to whether or not the *Clinic* had discontinued, since we had received no number of it for a long time, have received quite a number of replies. Among others is a correspondent from Lookout Mountain, who assures us that having made observations from his high elevation, he discovers that it is *weakly* issued. We would publish his letter in full, for it contians a great deal of good reading, but it is too long, and it seems to us rather personal. We are opposed to personalities, or else, when conducting the *Repertory*, some ot our Miami friends would have received many an expose and hot shot they did not.

Some six weeks before making our inquiries, before even the April number of the *News* was issued, we stated the fact to Prof. Reamy, one of the editors and proprietors of the *Clinic*, that we had not been receiving that journal for a long time, thinking that there had been some mistake. But having waited some six weeks without still receiving the little thing, we very naturally became anxious about it, and concluded to put ourself in the way of knowing whether it had really discontinued or not, and asked for the information we did. And we are glad we did so, for we were immediately relieved of our anxiety by our Lookout Mountain correspondent and several others.

One of our correspondents, who has a great deal to say about "small potatoes," intimates that a discourtesy was intended us by the gentlemen of the *Clinic* in stopping the exchange. But we do not think that that could be so, for in times past we have extended them too many courtesies for them to consider any thing of the kind. Why, we have in our possession now, a letter from one of them expressing his "heartfelt thanks" for our favors to him; and we have again and again received similar expressions from others. No, we cannot think so, notwithstanding our correspondent intimates that certain small minded individuals are ready to return a despite for a kindness so soon as they consider they are no longer in need of one's favors.

But our readers must not suppose that we feel we have *lost* anything in having lost the *Clinic*. We receive daily too many journals filled with solid reading matter, which we have scarcely time to open, to feel at all worried about the loss of the little sheet in which our young friends print their compositions.

THE PRINCE OF WALES.—The *Lancet* states that, although in spite of the rainy weather encountered by his Royal Highness on Lake Como, the Prince of Wales has benefited greatly by his sojourn in North Italy. Traveling incognito, the Prince has enjoyed a completeness of relaxation wellnigh impossible in England; and, gay as Milan is, even there his Royal Highness was able to saunter through the gallerses and art collections without interruption to that "still life" so salutary to his health.

THE LARGEST MEDICAL JOURNAL.—The *New York Medical Journal* and the *Richmond and Louisville Medical Journal*, the former published at New York, the latter at Louisville, have each been claiming to be the largest medical journal published in this country. But at the close of the thirteenth volume Dr. Gaillard says, in the *R. and L. Med. Jour.*: "This number, the largest that has ever been published, completes volume thirteen: subscribers have received 796 pages. *The New York Medical Journal* furnishes, during the same time, but 672 pages, or 124 pages less." So the vexed question as to size is definitely settled, and the *N. Y. Med. Jour.* must take down its flag.

By the way we will here say that both are very sterling journals, and deserve the support of the profession. The amount of valuable matter that each contains in the course of a year is very great.

The Secretary of the American Medical Associotion informs us that the minutes of the late session of that body are now in press, and will shortly be issued in pamphlet form, price 50 cents. All wishing to get a copy should send to WM. B. ATKINSON, Permanent Secretary, 1400 Pine Street, Philadelphia.

DIED.—DR. ZINA PITCHER, of Detroit, died April 5th, 1872. He was 75 years of age. He was distinguished personally and professionally, and well worthy of all the very high distinctions which were conferred upon him.

DR. SAMUEL A. BILLING, a prominent physician of Columbus, Ga., died March 19th, aged sixty-five.

THE

CINCINNATI MEDICAL NEWS.

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REPORT ON MEDICAL CHEMISTRY.

By J. B. Hough, M. D., Professor of Physics and Chemistry in Miami Valley Institute.

[Read before the Ohio State Medical Society.]

" Since we can become conscious of a phenomenon only by some change wrought in us, every phenomenon necessarily implies re-distribution of force—change in the arrangements of matter and motions."—*Herbert Spencer.—Classification of Sciences.*

At a meeting of the Ohio State Medical Society, held in the city of Columbus, June 8th, 9th, and 10th, 1869, the following action was taken:

" *Resolved*, That a committee of —— be appointed for the purpose of reporting upon the propriety of recognizing *Medical Chemistry* as an essential element of a medical education."

The committee to whom was referred the above resolution begs leave to report as follows:

A short time previous to the meeting referred to, the writer had called attention,* in an article which was copied into leading Eastern journals, to the importance of reform in this direction. As the article was but a short paragraph, the liberty is taken of embodying the same in this report.

"While every medical school recognizes the importance of, and provides the apparatus and reagents necessary for, the demonstration of the facts and principles of Elementary Chemistry, very few of our institutions make any provision enabling or requiring our students to become *practically* educated even in the merest elements of the science; and still less in those departments most essentially related to the science of Medicine and Surgery. Very few schools recognize such a department as *Medical Chemistry*, either theoretical or practical, and yet no department will yield a larger dividend to either the college or its alumni. So thoroughly convinced of this fact are the schools and students that have taken a pioneer step in this direction, that they would as soon, nay, rather, dispense with almost any other chair. Certain preparatory educational qualifications are required for admission into all our medical colleges, not because they are considered a *part* of a medical education, but because they are an indispensable *means* to a certain *end.* Would it not be every whit as rational for us to establish in every medical college a Professor of Languages, and then stop there, requiring no oral or written drills, examinations or theses, as to have a Professor of *Elementary Chemistry*, and go no further than this, requiring of our graduates nothing more nor less than the same identical chemical education that we would recommend to our dyers, distillers, and manufacturers? If the *elementary* or the *applied* science must, one or the other, be omitted in a medical collegiate course, had it not better be the former, letting it come in as a preparatory qualification, so that the time of the course can be devoted to its *practical application* in medicine? But there is no need of dispensing with *either.* A certain moderate proficiency in *practical* chemistry, both *general* and *medical*, can and should be one of the conditions of graduation. It is not incompatible with the circumstances of any school or student otherwise successful. While medical colleges are generally moving in the way of reform, it is ardently hoped that this subject among others will not be overlooked. Let every school provide itself with the means of putting this advantage into practical operation, and the investment will prove highly remunerative to all concerned. The physician who has even a moderate proficiency in this line is in possession of advantages second to no other item of qualifications. To him, formulæ and processes are matters of convenience, not of necessity. He is independent, if he chooses to be so, of careless, incompetent, or dishonest apothecaries. Phenomena that reveal nothing to others, or give rise to nothing but trouble or perplexity, may be to him the finger-post that shall point him not only to the means of saving lives that might otherwise be lost, but also to that goal of every noble-minded physician's ambition, a high degree of success and well-merited eminence. Practical pharmacists well know that their *reliable* preparations find their way into the hands of those who know enough of chemical tests to protect their own interests. A *very large* proportion of the drugs prescribed and dispensed are only mere compromises of what they should be, sufficient only to gratify the wishes, but not to supply the wants of those who use them. Whenever those who use or prescribe medicines, under their own personal responsibility, are *generally* sufficiently posted in practical tests to protect themselves from imposition, then, and not until then, will reliable drugs be the rule instead of the exception. The amount of actual chemical knowledge obtained and retained by the mass of medical students who "graduate," without any course of practical drill, amounts necessarily to just about nothing at all. Many retain a vague remembrance of elements, equivalents, and even some of the general laws of affinity; but what is their knowledge of them more than a mass of verbiage? Though they may have been students of the highest natural capacity, and may have attended the finest and ablest of lectures, still they find it about like learning to swim without going near the water. No wonder the value of chemical science is underrated even by the medical profession. It is one of those things that can be appreciated only as it is understood." *

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* Cincinnati Lancet and Observer,—August, 1868.

There seems to be, however, a general willingness to admit that chemical processes are competent to grapple with abstruse and delicate problems, and to originate wonderful and beautiful experiments; but when it is proposed to direct by its aid the every-day business of a medical practice, most physicians are exceedingly skeptical! All are willing to admit the ability of the analyst to detect the thousandth part of a fatal dose of almost any poison; none dispute that fermentation is impossible in presence of the merest trace of certain chemical agents; all agree that heat or acids will coagulate albumen; that tannin precipitates gelatin; that pepsin dissolves vegetable and animal tissues; that air or oxygen hastens, while caustic alkalies retard or prevent the coagulation of blood; and still they doubt the value of chemical evidence in the investigation of physiological and pathological processes!

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* It is but just to state that since the date of this paragraph, some instances of reform have occurred; but there is much yet to be done.

Every process in nature, terrestrial and celestial, vital as well as non-vital, physiological, pathological, or therapeutic, is merely a change in the arrangement of matter and force. It has been customary to classify all motions as mechanical or chemical; the terms molar and molecular have also been used; and though it was formerly thought that the line of demarcation was distinct and easily drawn, it is now known that the phenomena and laws of one class of motions are in the main applicable to the other, and that a middle ground exists for which the terms Molecular Physics, Molecular Mechanics, Chemical Physics, etc., have been variously proposed. In fact, the different departments of physical science are so intimately related, that the distinctive names applied to them are often conveniences rather than necessary terms representing natural divisions; and when we use the term *Medical Chemistry*, we wish to be understood as including under that term all that range of topics necessary to form a connected and complete system. It may be claimed by some that there is little or no *demand* for any such complete system; but whatever truth there may be in such claim, it cannot be thought that we have no need of it. Had steamboats, railroads, and telegraphs been withheld until a demand called them into existence, we had been without them to-day. Utility creates its own demand.

An immense mass of useful knowledge relating mutually to Physics, Chemistry, and Medicine is now "lying about loose." Why not embody it under some individual form? No matter, perhaps, whether we call it Medical Philosophy or Medical Chemistry. The inquiry comes from within and without the profession, "Have we a Medical Philosophy?" Assuredly, if we have not it is time we had! *All truths harmonize.* Every true science *necessarily* harmonizes with every other true science. If any contradiction occurs between any two, one or the other must necessarily be false; for one truth cannot contradict another truth. Now, there are certain immense strides that have been made in the physical sciences within the last quarter of a century that have scarcely begun to react upon the medical profession. Foremost among these is one that enters as a common factor in all the phenomena of nature—

THE RESISTENCE OF FORCE.

This cardinal truth, known also as "The interaction of natural forces," "Conservation of Energy," "Correlation of Forces," etc., is admitted on all sides to have an application as wide as the range of human thought. A truth "deeper than demonstration—deeper even than definite cognition—deep as the very nature of mind." "Its authority transcends all others whatever; for not only is it given in the constitution of our own consciousness, but it is impossible to imagine a consciousness so constituted as not to give it." "The sole truth which transcends experience by underlying it."*

It would be out of place in this paper to elucidate the great doctrine referred to, but we may safely say that upon this field is to be fought the final battle of Truth against Error, and the side on which the ranks of Æsculapius stand or fall the thickest will depend upon the course the profession takes during the next few years. The *spirit* of progress is rife enough, but it is too much disposed to run in speculative channels. It is the spirit that nurtures "pathies" rather than pathology. It is too prone to value fictions rather than facts. While the physical sciences generally are taking a bold and rapid march onward in this line of truth, shall medical science loiter by the wayside, leaving its deserters here and there to swell the ranks of charlatans and quacks, those ghouls that feed on putrefying ignorance? We believe that the greatest influence we can ever bring to bear toward wiping out the polluting stain of quackery within and without the profession is a thorough revision of medical teaching and text-books, bringing both fully abreast of the times, and especially in the line to which our subject refers. The tenacity with which many influential writers and teachers cling to old books and obsolete ideas is astonishing! It is high time that those in high places should make a clean sweep of all the rubbish, and place Medicine in the front rank of those sciences whose alma mater she has been. Assuredly, if we do not do it, quackery, with its pseudo-science, will gull the public into the belief that it is doing what we are neglecting. Let it not be understood that we are making a sweeping complaint against medical teaching. *Most of it is admirable.* Nor that we disparage the mass of truth, the product of centuries of labor and observation. Our objections are taken to the faults of omission, most of which would be covered by a comprehensive system of Medical

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* Herbert Spencer.

Chemistry. The student is taught that a given bone has a given articulation, and is moved in a given direction by a given set of muscles; but is he required to learn that muscular contraction is the correlated expression of chemical change? Perhaps he is befogged by a superstitious faith in the dogma of a "vital force." If so, he must submit to be led by an unseen fatality which he imagines to be independent of matter and physical laws! If the chemist has shown that there is no such thing as "vital force," or at least no reasonable evidence of its existence, why continue to nourish it as a pet fiction ot the brain? If it have no foundation in physical nature, the ravings of delirium, which also are creatures of the brain, have an equal claim on our credulity. But has the chemist done all this? Has he not, by directing the known physical forces, already built up hundreds of those organic compounds that were, and still are, by many, taught to be the special products of a "vital force?" "Of the three great classes of organic compounds, the oleaginous, the saccharine, and the albuminous, the first is completely under his power, and the second partially so." How long it will be before the other half is accomplished, we know not, but dare not venture the dictum that the same intellects that sought out this much of the hidden ways of nature are powerless to go further. Instead of concealing our ignorance under a very doubtful hypothesis by explaining the relations of diseases and remedies to the nervous system and the fictitious energy invented for that purpose, let us study the relations of food and medicine to the animal forces, and the relations of these to other known varieties of energy. But we must be cautious about believing every dictum whether in harmony with experience or not. The *great* thinkers sometimes err. The same man that taught that nitrogenous food was the source of muscular power, and non-nitrogenous food the fuel that generates animal heat, said also—"Show me the man who never errs and I will show you the man who accomplishes nothing." When Fick and his associate questioned nature on this point, she answered that the work done is *three times as much* as the oxidation of the nitrogenous tissues could possibly supply, and that muscular force as well as heat is mainly dependent upon the carbon consumed as fuel; so that vegetable and animal tissues act only as machines for converting the forces of inorganic into those of organic nature. Progress in every department of science depends upon the accumulation of *facts;* in the storing up of these we are building up experience, but it is only by the elaboration of these into *truths* that we establish those general principles which alone constitute the basis of all true science. It is no misfortune then, that Medicine is, to a great extent, empirical. But we must not forget that this element does not yet constitute true science. It is a mass of raw material waiting to be wrought into science. Science is the *relation* not the *summation* of experience.

It is not thought necessary to give here even a brief outline of what Medical Chemistry should include, or what it may be expected to accomplish. Its claims are set up on general principles. However, there is one line of research that might, for the present at least, be profitably included. Microscopy, in its appplication to Medicine, is largely dependent upon chemical tests, for which and other reasons, a practical knowledge of the construction and use of the microscope might justly be communicated through this channel. Here and there a school makes some provision for microscopical manipulation, and a very few for some of the simpler medico-chemical tests. Why not unite the two, and make both more thorough and efficient? There are few chemists who are not practical microscopists as well. Some such reform must and will be brought about. The public, even the uneducated public, demands it. The strongest hold that charlatans and quacks can secure, by their free and universal system of advertising, is the credit they get of being the progressive and scientific prodigies they pretend to be. A neighbor of mine was seduced by one of those incendiary circulars into visiting one of the "great" city celebrities, the "Celebrated Dr. Soandso." He found the waiting room "crowded with scores of patients waiting to be made whole!" "And," said he, "when I was ushered alone into the august presence of his doctorship, I was perfectly convinced that I had found a great man; for there over a furnace was a huge boiler with pipes coming out of both sides, and both ends, and crossing each other, and doubling and twisting about over and under, and in and out, and up and down, with stop-cocks and jim-cranks, and elevators and perambulators running into refrigerators and duplickets, and making the allfiredest sizzlin' and fizzlin' you ever heard of; and the infernal machine distilled thirty-five dollars out of me before I could take time to think." And thus it is. Science is in demand; and if we don't furnish a genuine article the counterfeit will be supplied *at our expense.*

We feel like begging pardon for calling attention to a matter so obvious that its bare mention is almost a reproach. Some, however, may insist that we might well be satisfied with what is being done in this direction; but *such opinions do us no credit.*

In conclusion then, two modifications in the course of medical education are insisted upon:

First,—Let Elementary Chemistry be required as a preparatory or undergraduate qualification; and

Second,—Make a respectable knowledge of Practical Chemistry, both General and Medical, one of the conditions of graduation.

EPIDEMIC ANASARCA, DYSPNŒA AND CONSECUTIVE ALBUMINURIA.

Par le DR. LIMOUSIN., Medicin de L'Hopital de Bergerac. Translated from the "Archives Generales," by THOMAS C. MINOR, M. D., of Cincinnati.

Chronic diseases permit the observation of frequent examples where are found conjoined, general infiltration, dyspnœa, and the excretion with the urine of a variable quantity of albuminous principles. Nowhere have I seen described an acute disease, with or without febrile symptoms, characterized by anasarca, the dyspnœa sometimes reaching such a point as to menace the patient with death from asphyxia, while at the same time analysis would permit the determining of an enormous quantity of albumen in the urine.

That which gives to the disease, which I propose to describe, a still more particular character is that it prevails epidemically. I observed about thirty cases of it in the space of three months, from March to June, 1857. Neither before nor afterward have I seen its counterpart. At that time, one did not see eruptive fevers of any kind.

Patients of all ages were attacked while in the most perfect health, most often without appreciable cause, with general œdema. There was added to it dyspnœa, sometimes excessive, and the urine was charged with albumen.

Curious for its rarity, this disease is not the less so for the pathogenic considerations to which it gives rise. Is it not singular to see general œdema derive from the epidemic genius this particularity, that it may impede the capillary circulation, that it should re-produce the picture we meet so often under our eyes in a lesion of the orifices of the heart. The singularity of this fact diminishes meanwhile before this remark. The cardiac lesion brings about grave troubles of the general health only at the moment when the embarrassment of the circulatory centre has reached the small vessels. This is so true that lesions of the orifice of the most serious kind are compatible with the appearances of most perfect health.

Œdema being only the manifestation of a retarding or stasis of the fluids in the small tubes, how is it astonishing that it may be followed by analogous troubles to those of diseases of the heart? It will suffice then, as in these last, it reaches the lung, and without doubt it often attacks it to a degree which escapes the most minute auscultation and percussion.

How often I have seen old albuminuric patients already infiltrated, seized suddenly with the most painful anxiety; they choke; their faces become blue; a cold sweat wets their icy skin; the pulse is imperceptible; the beating of the heart irregular. Is this not asystolic? But its cause is not in the heart; what is then going on? The infiltration has reached the lung.

Another notable particularity—the œdema is much more often preceded by albuminuria than it precedes it. In the case in which it arises here it is anterior to it. The albuminuria becomes very well marked at the point where the urine coagulates; then comes on the difficulty of respiration; it disappears suddenly, the œdema and dyspnœa ceasing. Without doubt it is for this reason that the conditions of the venous circulation follows with fidelity those of the skin and of the lung. When one explains these conditions by the variations of the pressure in the capillaries, by the troubles of the regulating nerves, it means little—remaining always to find the cause of these different states. The only tangible fact is the œdema, which is impossible to understand without a profound attack brought to bear upon the circulation, an attack similar in its nature to that which results from an obstacle to the course of the blood in a large vein or in the heart.

CASE I.—This case will show us the disease in its highest degree of gravity. The subject is a child of 13 years, of habitually robust good health. Two days before, its parents noticed its face swelling; it had a good appetite, and had not ceased going to school. The 14th of April it was suddenly attacked with difficulty in breathing. The following was the patient's condition: Face swollen, principally at the upper eyelids; tinge of cyanosis well marked on the lips; skin cold, sticky sweat; respiration extremely uneasy; pulse full and 120. Negative results on auscultation of the heart. In both lungs, rales sifflants to the right; at the base, bronchial soufle; and crepitant rales on deep inspirations; the voice sounded feebly; no cough. Urine scanty; its color is yellowish; this tint disappears on the addition of azotic acid; and there is produced an abundant grumous, whittish, grey precipitate, insoluble in an excess of acid.

Twelve leeches applied to the epigastrium did not modify this condition; it became worse rapidly. The child becomes unconscious, it has slight convulsive movements; its face is blue; its respiration horribly difficult; an emetic is given.

15th.—After very abundant evacuations above and below, passed a good night; respiration is free, the bronchial souffle persists at the right, it exists at the same time at the left, altogether at the base. Continued vomiting.

16th.—At least still a little souffle; the urine, reddish clear, does not give any precipitate. The child is cured, it asks for food.

Œ lema and dyspnœa, such were the first symptoms; the lung is attacked later, but the rapidity of the invasion, the unusual rapidity with which the symptoms of choking are dissipated, do not allow me to look on it as pneumonia. Under the influence of the respiratory obstruction, the capillary system already touched by œdema, has ceased to perform its functions; all the tissues, principally the most vascular of all, those of the lung, are engorged with fluid; from this the cyanosis, the crepitant rale and the bronchial souffle. At the time the dyspnœa became excessive, the urine was strongly albuminous; freedom of respiration reappearing, albumen no longer showed itself. It filtered across the kidney, under the efforts of the intra-vascular pressure, and outside of all lesion of tissue: so it has appeared only an instant. He has not had it since convalescence.

In this case, all is explained mechanically, the same the effect of the medication. From the moment the emetic produced in the intestine an abundant flow of liquid, the vessels emptied themselves; they resumed their tone, and all was terminated. Let us notice the insufficiency of bleeding by means of leeches.

CASE II.—Woman aged 30; she is well formed, regular, although having leucorrhœa. She is a butcher's wife and lives in a cold and damp house. The 8th of May she complained of being swollen all over to such a degree as to not be able to hook her dress. There exists, in fact, a general œdema; it is white, very elastic; the face and the eyelids are notably attacked. The appetite is good, pulse 58, urine cloudy; nitric acid clears it up. The 10th and 11th, same state; she has kept her bed and drinks hot drinks.

Getting up on the 12th, she was exposed to the cold, her shop being very open and very much ventilated. She had a bad night of it, she had chills, was uneasy and very much agitated. In the morning, I found her with a red and turgid face, sitting upon her bed and almost suffocating; her breathing was 40 to the minute. The resonance on percussion was feeble all over the thorax; the expiratory bruit was noisy, hissing; breathing was painful. Pulse 120, full, resisting; skin hot, tongue white, constipation. To-day, the 13th, bled the patient and purged her. This night she rested easy, the skin was moist, the pulse was brought down to 70. The clot from the bleeding is small, covered with a greenish pellicle, not contracted, the serum was limpid and abundant.

16th,—Passed a painful night, there is still dyspnœa; this was the last phase of the disease.

The bleeding has acted as it does in diseases of the heart—that is to say, altogether mechanically; it has emptied the vessels, and they have resumed their functions. All procedures capable of producing depletions act in the same way. In this case, the succession of the phenomena is very clear; œdema has opened the scene; later, the exposure of the patient to cold aiding; the lung is attacked and has presented symptoms of a true obstruction. There passed into its tissue that which is seen in the skin; it was gorged with liquid. The functions of the heart, however, and the course of the blood in the large arteries, went on without trouble; the capillaries only were found affected.

Let us note the absence of albuminuria. Among almost all the other cases I could prove its production. The lack of venous albumen, in some cases, comes to render certain the explanation which consists in regarding the kidney as exempt from lesion, but undergoing a passive congestion. It will be very difficult to understand why, the skin and the lung being gorged with liquid, the kidney should not be like them.

CASE III.—A woman of 24 years, in good health, was attacked. Last summer, she had an attack of tertian intermittent fever; she is very regular; her whole body is swollen; she does not suffer. Interrogated, she does not complain of pain in the lumbar region; pressure does not provoke it. The œdema does not keep the imprint of the finger; the skin is white, cool; pulse 72; tongue clean; appetite natural. Her courses appeared on the 7th. Before the courses, the urine, treated by nitric acid, gave an abundant precipitate; it almost took the form of jelly. Different means were employed, the œdema increased; she passes her nights badly; there is an intense feeling of suffocation; precipitate at the same time in the urine; the courses ceased to flow on the 10th; let us say that their duration and quantity have not undergone any modification. The 11th and 12th, twenty grammes of *eau de vie allemaude.* After very abundant evacuations, infiltration and dyspnœa disappeared, to show themselves no more. I note the persistence of appetite; it has been the most ordinary case; the digestive functions were accomplished with regularity; the tongue remained normal in its aspect.

In this woman, in spite of the enormous quantity of albumen filtered by the kidneys, she did not complain of the least suffering. As in the other cases, the œdema preceded the dyspnœa, and I have not been able to determine whether it was accompanied by pulmonary rales. The attack took place at night; auscultation of the lung during the day gave results altogether negative. Vascular depletion was brought about by drastics; a little less promptly than the bleeding done for case No. 2. It was altogether as durable. I return to the remembrance of this state with diseases of the heart in their advanced period. We know with what facility capable agents empty vessels; general bleeding, digitalis, and hydragogues, put an end to formidable troubles. It is the same in epidemic œdema; the disease flows with the intestinal liquid as if a direct communication existed between the sub-cutaneous tissue and the digestive tube. When we compare these cases to those where general or partial infiltration results from palustial engorgements of the spleen, from atrophy of the liver, from ascites owing to chronic peritonitis, an infiltration so rebellious to all agents of the materia medica. However clear, and however evident, then, may be the comprehension of the disease—œdema, propagation to the lung, consecutive and mechanical albuminuria,—if it is easy to explain how therapeutical agents are capable of emptying the vessels, and carrying away the disease, it is not easy to understand why it is not reproduced. How does it act upon the first anatomical or dynamical cause to which it must owe its origin? Often, I believe, in the organism, a first cause does not wait to bring about a susceptible effect to transform itself into a cause in its turn. In this manner: from the œdema coming on, it brings about dyspnœa and albuminuria; the state prolongs itself; the dyspnœa in its turn increases the pressure in the vascular tubes and the œdema is increased. In its turn also, the excretion of the albumen, from thenceforth purely passive, modifies the crasis of the blood and acts actively upon the nervous system.

CASE IV.—Woman of 30, of habitually good health, very regular. It is two days since she noticed a swelling about her thighs. I saw her the 4th of May. Œdema very marked in the face, and also in lower limbs; these parts are white and keep the imprint of the finger a long time. Her pulse is 70; her skin is cool; no pain in the lumbar region. She has not ceased working. The urine is clear and gives a precipitate on the addition of azotic acid. For two days, *eau de vie allemaude* was given, and she recovered.

This is the disease reduced to its greatest simplicity; œdema of the skin and nothing else; no dyspnœa; slight albuminuria. Two purgatives were sufficient to empty the vessels. Why did the œdema now keep the impress of the finger, bye and bye reacting under the pressure without preserving its trace?

CASE V.—Child of 13 years; scrofulous; she has had enlarged glands of the neck, and ulcerations of the skin; she has a large nose and lips. To-day, May 22nd, no appetite; face swollen, slightly cyanosed; infiltration of the limbs; the skin is white, very elastic on pressure. Every night, suffocation obliges her to remain sitting up in bed. The skin is cool; pulse 70; beatings of the heart very slight; sonorousness of lungs normal; great purity of vesicular murmur; in the meanwhile respiration is constantly impeded. Azotic acid hardly disturbs the urine; heat leaves it normal. From the 20th to the 29th the symptoms disappeared under the influence of drastics.

The pulse beat at 70, a low number in a child. The woman in our first observation only had 58 pulsations. In general, outside of complications such as that following No. I., the pulse behaved itself as it does when the inter-vascular pressure is exaggerated: it was full, resisting, infrequent. In order to react against the obstacle to the course of the liquids in the small tubes, the heart increased its action. Gravity exercised no influence regarding the distribution of the œdema; nowhere was it more pronounced and more premature than in the face.

CASE VI.—Woman of 26 years; lymphatic; well formed; been a wet nurse for three months past; has her courses regularly at their usual time notwithstanding her suckling. Her whole body is swollen; the impress of the finger is persistent; she is obliged to rise at night, or to remain sitting up in bed, the vertical position making the difficulty of breathing, which torments her, more bearable. She does not cough; percussion and auscultation do not give any result; nevertheless she complains of a feeling of very painful oppression in the right side of the lung. The bruits of the heart are normal as regards sound, rhythm, and frequency. This condition has lasted for the last fifteen days; a purgative has not brought relief. An abundant precipitate in the urine on the addition of nitric acid. Same treatment and the same result as in the other cases.

In all these cases of anasarca, I have had recourse to the compound tincture of jalap. I do not know a hydragogue purgative more sure, more easy to manage, more suitable to rapidly empty the vascular system *hydremie*, and at the same time, more inoffensive to the intestine. In spite of the rapidity of its action, in the immense majority of cases, it hardly touches the digestive mucous membrane, and leaves it qualified to resume, upon the spot, its functions. We will say its action to be analogous to that of sapid substances upon the salivary glands.

These observations are sufficient to show the complete picture of the disease, presenting all its stages: anasarca without dyspnœa and without albuminuria; anasarca with dyspnœa, albuminuria, cyanosis, syncope, the gravest stage that invests the disease. I will then add nothing else; the reflections I have made follow each history of the patients; and treat upon its evolution, upon its pathogeny of symptoms and upon its treatment, and give all necessary details.

Adult men do not figure in the number of my patients for the reason that they were not attacked, or that they did not present themselves to my observation.

DISEASES OF WOMEN.

A Paper read before the Knox County Section of the Medical Society of East Tennessee, by ALEX. B. TADLOCK, A. M., M. D., President of the Section, January 26th, 1872.

"O Tempora, O Mores."

Our purpose in selecting the subject of this paper is not so much to discuss the different "*Maladies des Femmes*," as to examine into some of the evil influences, and customs of civilized society, which tend to injure health; to notice the history of gynæcology as a special branch in medicine, and to scrutinize its merits as a specialty in practice. In the course of investigation, however, it will be necessary to treat of some of those diseases apparently peculiar to women, as distinguished from those of men; and we shall also take advantage of this occasion to introduce theories on different subjects in order to awaken interest, elicit thought, and excite discussion. We use the word *apparent* because we consider the peculiarity to be more the creature of the imagination than that of reality, and this we will attempt to show before we are done. We insist that it is unnecessary to prove the depreciation of the health of women, either as compared with that of our maternal ancestors, or that of the male sex of the present day.

The great number of gynæcological authors, with their innumerable and constantly increasing works; the swelling ranks of nostrum-mongers with their female medicines; the incalculable varieties of instruments and appliances for her special use; the augmenting army of regular and irregular physicians aspiring to the distinction of Female Specialties,—all stand out in bas-relief as unmistakable evidence of the fact. The tendency to depreciate the tone and vitality of the stomach, together with the functions of nutrition and assimilation, by the indiscriminate use of poisonous compounds, indulged in by the people generally since the introduction of patient medicines, is a reason sufficiently pertinent to be merely mentioned in this connection before a medical fraternity.

Again, we recognize an error too generally indulged in even by respectable phsicians, in that they often attempt to treat disease (sometimes mere complaints) of women, hypothetically, without making use of the advanced modes of physical diagnosis now at our command, and thus, too often misguided, suffer disease to advance, or actually add fuel to the flame, or even, by meddlesome officiousness, create most serious and unfortunate difficulties. False and unnatural modesty, no doubt, often prompts the physician to avoid making the necessary examination to deduce a correct diagnosis. But besides these and the medicine vendors, there exist in the world some evil spirits, who, taking advantage of woman's credulity, as the "point d'appuis" for attack, have initiated a panic which has spread and gathered force until a wild mania pervades society on the subject of "diseases peculiar to woman." Often a fanciful idea of a disease is, by these fallaciously confirmed as a reality, the symptoms announcing it to be the "facile princeps" of uterine trouble, requiring special examination, special treatment, and special applications of a *special* specialist.

Why, a woman can scarcely be considered fashionable unless she has some disease referable to the womb, and requiring treatment from some one styling himself by the euphonious title of Gynæcologist. Nevertheless women are sickly, and furnish two-thirds, if not more, of a physician's employment, and therefore I am not here to attack or malign, but to defend the shining characters of those who have made themselves illustrious, and enriched our art and science by valuable acquisitions.

But we are not yet done with causes; having noticed some of the parasitic cankers leeching society, why not incise some of the adventitious festers of social evils? We have been taught by our forefathers to thank God that we have been born in a land of civilization and Bible societies; to be sure this is better than to be born and reared among barbarians; but that does not militate against the fact that barbarous influences and principles stick to us in spite of our prayers, or our advancement in science. Where will you find more superstition and prejudice in regard to the healing art than among the educators and Christian assemblies of our country? Is not the physician's bitterest humiliations experienced through the influence and example of the clergy as well as the laity? Less barbarous and far more humane as well as better for future generations that the Chinese custom of pinching the feet should be adopted, instead of tight lacing, humped-backs, and other modes of presenting to advantage the "human form divine." And who, outside of theatres, indulge or approve them more than the ecclesiast and his wife and daughters?

We must not linger too long, but we will now pass to the consideration of a more popular and better appreciated theme. The history of gynæcology, so far as we know, commenced with Hyppocrates, who devoted three volumes exclusively to it, in which he discusses the symptomatology and treatment *in extenso.* We doubt not, however, that much valuable knowlenge had been obtained on this subject long before his day.

For the diagnosis and treatment of vaginal and uterine disease, the syringe, pessary-speculum vaginæ, uterine sound, and tents furnish indispensible aid. The history of almost all of these "runneth back further than the memory of man." Ætius, in the Fifth Century, speaks of the sponge tent—and yet we are told that Simpson first utilized it. The uterine sound was well known to the ancients, but its value was unknown to moderns, until brought forward by Simpson, Kiewish, and Lair, 1828-1844. Strange that such instruments should have been invented 2000 years ago without a purpose, and remained so long in the profession without being utilized. The speculum vaginæ was described by Galen, who lived in the first century, but it is known to have been much used between the years 400 and 640 B. C., and highly valued as an obstetrical instrument,—yet Recamier, the father of modern gynæcology, had to re-discover them in 1801 after being lost to view for from 2200 to 2440 years. It has since received various modifications and improvements. The pessary is familiar in Grecian history. But these are only auxiliary means to correct diagnosis, and do not faithfully exhibit the progress in the science of uterine medicine and pathology.

In perusing the subject, we notice two features, striking, and full of suggestion; one is that in its progress as a speciality, little merit attaches for originality to the specialist; the other that we find but few therapeutic peculiarities in the treatment of maladies so characteristically distinct as to require peculiar qualifications and special practice, as claimed by specialists. Besides the deleterious influence which the specialization of medicine exerts over the profession generally, its division is impracticable for general practice, and tends to abridge the necessary qualifications which distinguish professional eminence from empiricism; for it is only to the comprehensive study of the whole that we can look for proficiency in any one part. Women fail to become useful and eminent practitioners, not for want of genius, but because of their being, either accidentally or necessarily, restricted to a specialty. Dr. Theodore Billroth, in his introduction to his work on surgical pathology, expresses himself in reference to specialties in these words: "The study of surgery is now in most countries justly regarded as a necessity for a practicing physician. We consider it a happy advance that the division of surgery from medicine no longer exists as it did formerly. The difference between internal medicine and surgery is in fact only apparent—the distinction is artificial." The same is true with regard to the treatment of diseases peculiar to women. In short, a specialist can only judge correctly and safely of the state of his patient when he is at the same time thoroughly versed and *practiced* in all branches. The oculist and aurist can more plausibly establish their claim on the plea that their specialty requires a distinct knowledge of the laws of acoustics and light. As to the therapeutic feature, we have in vain searched for a single exclusively gynæcological medicine. However, in its administration, we are admonished to guard against the injurious action and influences of certain drugs and remedies during the state of embryonic evolution. Yet we find even the sympathetic manifestations of this condition treated with remedies common and equally adapted to both male and female. Exclusive of obstetrical surgery, there is nothing, except its mechanism, in this department peculiarly special. The plastic operation and the healing or union by first intention are the same, whether performed on woman or man,—whether for hare-lip of the labiæ superiores oris, or for fissure of the cervix uteri or labiæ majoris. The introduction of the speculum and uterine sound is a little easier and simpler than is that of the male catheter or bougie; and it is easier to diagnose and cauterize an ulcer on the os tincæ than one in the fauces; easier to extract a uterine polypus than one from the posterior nares; and so throughout surgical gynæcology.

We are neither discussing woman anatomically nor physiologically; but passing by these we next notice that which is most eminently characteristic of her in disease, and entitles her to the special study of the profession,—the semeiological and pathological features dependent upon the identity and offices of that mysterious organ. the uterus. Owing to the sympathetic relations and the peculiar sensibility of the woman, her symptoms are very deceptive, and must be studied and severely scrutinized to render correct diagnosis. It is often only by the aid of physical diagnosis that we can account for the functional or rational manifestations.

Bennett attributed all uterine diseases to inflammation. Velpeau considered the principal cause to be displacement. We would question the first, as to the inflammatory character of a benign tumor. English gynæcologists "regarded the local disorder as the result and not the cause of concomitant constitutional derangement, while French surgeons viewed the uterine disease as the main element, and the general condition as dependent upon and resulting from it." Subsequent developments have shown the impracticability of either theory when applied exclusively for all cases. In treatment, success will seldom be attained without the local and general conjoined.

CASE OF CEREBRO-SPINAL MENINGITIS

By J. M. Swetnam, M. D., of Kirksville, Mo.

Jerry Havens, aged 15 years. Saw him first, May 5th, 1872, at six o'clock P. M. Patient delirious; pupils contracted; anxious expression about the face; skin dry; tongue coated with a brownish fur; pulse 130; respirations 20 per minute. Could get no reliable history of the case from the commencement. Learned that he had vomited once, and that he had been delirious at times for two days. Some discolorations in the lumbar region; extremities cold; slight subsultus. Administered the following:

℞	Hyd. sub. chlor.	gr x.
	Ipecac.	gr. j.

Ordered cold applications to the head, sinapisms to the feet, and stimulating liniments along the spine.

May 6th, morning. Patient quiet, though stupid; disinclination to answer questions; pulse 120; kidneys had acted freely; bowels had moved once. Ordered magnes. sul. ℥ss.

Evening. Patient delirious with jactitation. Upon inquiry, I found that he had been much better during the day, and had *eaten a quarter of a pie and about three ounces of pound-cake*, and was taken worse directly after; pulse 140. Ordered

℞	Inf. Sennæ	℥ij.
	Potas. Bi. Tar.	ʒj.

and cold to the head. Pupils being contracted, did not feel justified in giving opium.

May 7th. Pulse 130; bowels moved freely; dark coat upon the tongue; patient more quiet; answered questions rationally; complained of pain in the head, back, and left ankle.

Evening. Symptoms generally better; pulse 120; countenance more natural; some diarrhea. Ordered

℞	Hyd. sub. chlor.	gr. viij.
	Ipecac.	gr. ij.
	Opii.	gr. ss.

M. Make four powders. Sig., one every two hours.

May 8th. Patient much better; expressed himself entirely free from pain; herpes upon the lips, tongue, tip and edges red, center dusky and slightly fissured.

May 9th, morning. Patient still improving. Being called away, did not see the patient again until evening, May 10th, when I was sent for in great haste; found the patient again delirious; much jactitation: muttering incoherently; carphology and subsultus tendinum; pupils contracted; skin muddy, with a sottish expression about the face; pulse 150, small and fluttering. Ordered cold to the head, counter irritation along the spine.

May 11th. Pupils less contracted; pulse irregular and weak; a profuse cold perspiration. When told to protrude the tongue, did so slowly, and kept it out until told to put it back; subsultus and floccitation continued; bowels move involuntarily. Began the use of sul. quinine in grain doses: counter irritation continued. May 12th the patient much the same.

May 13th. Saw the patient, in company with my friend Dr. Brown. Patient moribund. Died at 10 A. M., in convulsion.

AUTOPSY,—twenty-six hours after death, by Dr. Burton and myself. Rigor mortis well marked; depending portions of the body discolored; some œdema of the lungs; blood dark and fluid: spleen slightly enlarged. Brain substance and dura-mater normal; dura-mater and arachnoid of both the brain and cord abnormal: pia-mater highly congested, and arachnoid injected, dry, and thickened; fluid in the sub-arachnoid space much diminished, with a collection of a yellowish lymph into the fourth ventricle. The condition of Peyer's patches were not examined.

It is proper to say that the hygienic conditions of this patient were exceedingly unfavorable.

STRANGULATED HERNIA.

In a lecture on the above named subject, delivered at St. Bartholomew's Hospital, and published in the *British Medical Journal*, Sir James Paget remarked that in hospital and private practice together he had operated an hundred times for strangulated hernia, but that to obtain conclusions of real value it would need a tabulation of at least a thousand cases.

Generally speaking, in a case of hernia with signs of strangulation present, and reduction by ordinary means cannot be accomplished, an operation should at once be performed; in some cases, although the hernia is reducible, the symptoms of strangulation are slight, obscure, or incomplete. It is an easy rule for all these cases that you should operate when strangulation is suspected: this rule you must avoid, and learn the hard one to discriminate the cases that require operation.

The irreducibility of the hernia is a fallacious sign of strangulation, and the presence of the other local signs even in a marked degree, is not decisive of strangulation, and is not sufficient to prove the need of operating when the remoter signs are not present. The local characters usually present in a strangulated hernia, and sometimes the remoter signs, may be imitated in an inflamed hernia, which is not strangulated. Generally, in the inflamed hernia, without strangulation, the local signs precede and greatly predominate over the remoter and general signs; while, in a hernia, which is inflamed after becoming strangulated, the remoter and general signs will still predominate over the local, and the history will tell that they preceded. If these means of discrimination fail, you must operate if you cannot easily reduce the hernia; the risk of operating is small in comparison with that of waiting, for an inflamed and irreducible hernia may at any time become strangulated.

A hernia that has come down quickly and the more it exceeds its usual size the less is the probability of its being reduced without operation.

Again, the harder, more intense, and painful a hermia is, the less the chance of reduction without an operation.

Again, if the remote and general signs of hernia are present, and the hernia cannot be reduced, you must operate; or, if there be a swelling which may be a hernia, though it seem not likely to be a strangulated hernia, the operation must be performed at the seat of the swelling.

If a patient have two herniæ that are irreducible and signs of strangulation, and you cannot tell which is strangulated, you must operate on both.

One or more actions of the bowels after symptoms of strangulation have set in, are of no weight against the propriety of operating; even frequent and regular action is not an absolute prohibition, as strangulation may involve only omentum or only a part of the circumference of a portion of the intestine.

As a rule, while the bowels act you should not operate unless all the other signs of strangulation are well marked.

The sign we should most rely on as commanding the operation is vomiting. The rule is safe that recent irreducibility and vomiting are enough to justify the operation, even though there be no other signs of strangulation present. While there are notable kinds of vomiting characteristic of strangulated hernia, we should not be misguided by waiting for any particular kind. Any kind of vomiting, if it be repeated, is enough to justify operation in a hernia recently become irreducible.

Cessation of vomiting in the extreme condition of strangulated hernia is a token of evil rather than of good, if general improvement do not coincide with it. The pulse is 80 or 90 in a majority of ordinary cases in the early stages, and becomes more rapid as the symptoms of strangulation become more marked; the respirations usually are in due proportion to the pulse.

For the reduction of strangulated hernia without operation, Sir James Paget laid down the following general rules:—

In cases, for instance, when the patient vomits fæcal matter and has peritonitis, or is in collapse, with a small rapid pulse, hiccough, or other such extreme signs, there should be no attempt at reduction without operation.

When the coverings of the hernia are so inflamed as to make it probable that sloughing or suppuration has taken place beneath them, reduction should not be attempted without operation;

and even when less inflamed, none but slight and brief efforts at reduction should be made.

The longer the signs of strangulation have existed the shorter should be the efforts at reduction; but the intensity of pain in recent or acute hernia should not deter one from making the attempt.

In a hernia which has been habitually irreducible and becomes strangulated, you should operate at once. It is a safe rule of practice that, after a warm bath and a few hours rest in bed, a single attempt at reduction should be made; should this fail, chloroform or ether should be given, and then, in some cases, but not in all, a second attempt made; this failing, the operation should be performed while the patient is still insensible.

The hot bath is useful in all cases that are not bad, unless in old and feeble persons; the patient should be simply soothed or relaxed in the bath, then wrapped in warm blankets, put into bed lying on his side or his back, with his knees drawn up, or with his pelvis a little raised, and then after an hour or two of complete rest to attempt the reduction. The employment of rest and the bath is helped by opium when the hernia is painful. In the old, and others who may have had inactive bowels long before the strangulation, an enema of a large quantity of liquid should be used. Purgatives should not be used if there are marked symptoms of strangulation.

After the warm bath and rest have been tried, you may give chloroform or some other anæsthetic. In making the attempt at reduction you must be gentle and self-restraining, mindful of the delicacy of some of the structures you are handling, and that you may do them much more harm than would come of the operation which you are trying to arrest. These cautions are the more necessary because when the patient is under chloroform, you have nothing but your own sense and senses to tell you how far you may go without doing harm. Chloroform is most useful in the herniæ of which the difficulty of reduction is chiefly due to muscular resistance, in the recent, or in the recently much enlarged; in the inguinal more than in the femoral; and in these more than in the umbilical; in the painful more than in the painless. In herniæ that have only recently come down, and are intensely painful, it is right to use chloroform or ether without waiting for the influence of the warm bath, but more commonly, if there be danger in waiting three or four hours, it is because strangulation is so far advanced that the operation ought to be done without any previuos attempts at reduction.

After the warm bath, rest, and chloroform have been tried, and the reduction is not accomplished and strangulation exists, you should operate while the patient is still under the influence of chloroform; but if strangulation is not present you may wait, but must watch patiently, for the hernia is likely soon to become strangulated. While waiting, ice or warm dressings, enemata, aperients or opiates may be used. Tobacco and curious postures, and shaking the legs up and the head down, and the cupping glasses are more dangerous than the operation which they are intended to avert. For doubtful or partial reduction there is one practical rule—operate if the symptoms of strangulation are not relieved. In cases in which reduction seems complete, but the symptoms of strangulation are still present, operate, if you can feel a lump at or near the hernial ring.

Old age and disease may add to the risk of an operation for strangulated hernia, but they must be accepted. A patient must not be allowed to die with a strangulated hernia if by any means whatever the strangulation can be relieved; and you must not be averted from the operation by the number of deaths that follow it. The deaths after the operation may be 50 per cent., but the deaths due to the operation are not more than 2 or 3 per cent.

The remaining lectures on this subject by Sir James Paget are devoted to a description of his several operations for the relief of strangulated hernia, which our space will not permit us to give to our readers.—*The Doctor.*

NEW YORK PATHOLOGICAL SOCIETY.

DR. A. L. LOOMIS, President, in the Chair.

DR. RODGERS, on behalf of the Committee on Microscopy, reported the specimen presented by Dr Post to be one of local folliculitis.

INCRUSTED BLOTTING-PAPER RESEMBLING NECROSIS OF INFERIOR TURBINATED BONE.

DR. KNAPP exhibited a specimen of blotting-paper removed by operation from the nose of a boy aged 12. The patient had suffered from an offensive discharge from the left nostril for many months. On examination, what appeared to be a necrosis of the inferior turbinated bone was discovered. The probe grated against its surface, which was entirely bare, and of a stony hardness. The body was extracted by means of an ordinary forceps, and instead of being the lower portion of the inferior turbinated bone, it proved to be nothing but a cast of it, the mucous membrane of the bone being intact, but covered with ulcerations which were filled with pus. The basis of this incrustation was, on microscopical examination, found to be blotting-paper, which at some previous time had been introduced into the nostril. The specimen was of interest only in connection with its clinical history.

GANGRENE OF FOOT—THROMBOSIS OF TIBIAL ARTERY—THE COMPARATIVE UTILITY OF SYME'S AMPUTATION.

DR. HEWIT presented a specimen of gangrene of the foot removed by amputation from a young man, aged 32, who had entered the Charity Hospital six weeks ago, suffering from warty vegetations of the glans penis. The operation for phimosis was, after a time, performed, and the warts were removed. He left the hospital the same day, and walked a great deal while in the city. The result was that a good deal of inflammation was set up, and he was forced to re enter the hospital within the succeeding twenty-four hours. This inflammation was followed by extreme fever characteristic of pyæmia, and the prostration was so great as to threaten immediate death. The administration of very large doses of quinine was attended with a temporary good effect. Coincident with this improvement was a cessation of pulsation in the anterior and posterior tibial arteries of right side. Shortly succeeding this, gangrene of the toes developed itself, and a distinct line of demarcation was formed at the metatarso-phalangeal articulation. In view of this fact, that the posterior tibial arteries did not beat, and that a large portion of the skin had been discolored, and that there was a good deal of tenderness and puffiness about the ankle-joint, it was considered prudent, on consultation, to perform Syme's operation. The latter was accordingly done by Dr. Fortun, resident surgeon. The case subsequently did well. The diagnosis was thrombosis of the posterior tibial. The patient had frozen the foot five or six years ago, a circumstance which lowered very materially the vitality of the parts, and tended to invite, in the present condition of the patient, a low grade of inflammation in the surrounding points. In making a choice between Chopart's, Lisfranc's, and Syme's operations, Dr. Hewit was always in favor of the latter under the peculiar circumstances which obtained in the present case.

DR. MASON stated that the experience of the surgical staff of Charity Hospital favored the performance of Syme's amputation in preference to either Chopart's or Lisfranc's. Not unfrequently patients upon whom the latter operations had been performed were compelled to return, to have Syme's amputations made.

OSTEO-MYELITIS.

DR. BRIDDON exhibited a specimen of osteo-myelitis, and gave the following history:

I visited Miss M. on the 9th day of July, 1871, and obtained the following history:—She is 19 years old, of good stock, at least I can elicit no clue to hereditary diathesis or predisposition to disease. She always enjoyed good health until the 5th of January, 1869. On the 2nd day of that month, she was out visiting, but was warmly and comfortably clad, and does not think she took cold; two days afterward she was attacked with pain in right ankle; it soon diffused itself over the whole limb, and became excruciating in character. The pain, though diffuse, had its foci of greatest intensity over the lower end of the femur and in the neighborhood of the tibio-tarsal articulation; it was accompanied by great swelling, which extended as high as the groin. On the 13th of the month, an incision was made by the medical attendant on the inner aspect of the thigh, which, however, gave exit to nothing but blood. On the 20th, an opening formed spontaneously on the outside of the thigh, from which there was a copious discharge of pus. The pain now diminished, and there was a period of comparative repose, which, however, was of short duration. From the description, I think there must have been diffuse suppuration of the limb, as it is stated that a number of openings formed in both leg and thigh, that they continued discharging for a long time, and that subsequently exfoliations of bone were discharged, a large slough formed over the heel, exposing the os calcis, which remained rough and bare for a time, but eventually cicatrized.

At the time of my visit the limb presented the following appearance:—The foot was in the condition of varus, firmly anchylosed. At the tibio-tarsal articulation, there was an indented cicatrix over the heel; the lower half of the integuments of the leg was hard, brawny, and matted to the parts beneath, and, at some points, adherent to the bone, crimson, glistening, and scaly, were stretched over the convexities, resulting from incurvation of the foot, at other points of a brownish hue, and in the middle of the peroneal region was a large ulcer.

Motions of the knee-joint were free; lower fourth of the femur was slightly expanded; four inches above the internal condyle was a sinus leading to necrosed bone; on the outer side of the thigh, and in the popliteal space, were the openings of other sinuses.

I supposed that I had to do with an ordinary case of necrosis. The leg was distorted, withered, and irrecoverably damaged; it was condemned at once; but before resorting to measures in that direction, I determined to make an effort to save the lower end of the femur. The sinuses in the popliteal space were opened up, and all the necrosed portions of bone were removed. A subsequent operation was made for another fragment. After these operations the sinuses were dressed from the bottom, and every attention was directed to improving the patient's general health. She responded to treatment, color returned to her pallid cheeks, but the sinuses refused to heal. In the month of November she had an attack of erysipelas, complicated with a large diffuse abscess on the outside of the thigh. This was opened four inches below the great trochanter, and after the active processes had subsided, a drainage tube was passed from this through the sinuses in the popliteal space, and other tubes were passed transversely through the same region. These were kept in for a month, and irrigation was practiced with carbolic acid in weak solution. The sinuses refused to close, and in the early part of March I convinced myself that a probe could be passed through a cloacous opening into the cancellous structure of the lower end of the femur. I advised amputation through the thigh, and my proposition was acceded to by the patient and her friends.

Operation was done the 12th of March, 1872. I selected the procedure by antero-posterior skin-flaps, circular through the muscles, planning so that the latter incision was made seven inches above the condyles, or at that point where the expansion of the bone terminated, so that when the muscles were retracted a section of the bone was made at least an inch and a half above the point. After division of the bone, the medullary substance was discovered to be in a very unpromising condition. It was semi-diffluent, almost dropping out of the canal, of a dark brick-red, mottled with a material of a grayish hue. I then stripped up the periosteum for an inch and a half, so as to leave a curtain of that membrane to fall over the end of the bone, as advised by Langenbeck, and made a second section. At this point the medulla was of normal consistence, but of a reddish color. The only remaining feature remarked during the operation was, that the femoral artery was certainly not larger than the adult radial. It was the only vessel really requiring a ligature. Another was used, but might have been dispensed with.

I present to the society a number of sequestra or superficial exfoliations of bone that were removed, some of them from the popliteal space, others from the leg.

The portion of the femur removed measures eight inches in length; it is moderately expanded above the condyles, the expansion tapering off and ceasing one inch below the transverse section; on the posterior aspect, immediately above the condyles, is a fistulous opening leading into the cancellous structure; a second opening may be seen one inch and a half above this, and three inches and a half above the tubercle of the internal condyle is a third opening leading into the medullary canal. On making a longitudinal section of the bone, the saw passed for a distance of two inches between the condyles, as if it were passing through egg-shell; for a distance of about four inches above this the division was made with difficulty; the remainder with ease.

On examining the section, it was observed that the two lower fistulous openings passed into the cancellous structure, in the centre of which was a small cavity continuous with the opening, which was filled with a semi-diffluent material, grayish, semi-transparent, resembling cold boiled starch. This cavity was not circumscribed or lined by membrane; it was continuous with the cancellated structure around; the alveoli, immediately adjacent, were filled with degenerate products of a bright lemon color, which contrasted vividly with the surrounding vascular zone.

Three inches above the condyles, the medullary canal was almost obliterated by thickening of the wall of the shaft. This expansion was fusiform, tapering off at either end. In the centre the walls were half an inch thick, sclerosed, and it could be seen that the increase was both eccentric and concentric; the third or superior fistulous opening led into this contracted portion of the canal; this was also filled with the grayish semi-transparent deposit. The remaining portion of the shaft was filled with medullary matter, in a caseous condition, of a bright lemon color; and at the point of transverse section the walls of the shaft were attenuated, not more than two lines thick.

In speaking of the morbid changes, Lancereaux says: "There first occurs a disappearance of fat cells of medulla; secondly, a multiplication of the medullary cells, followed by suppuration of medullary substance terminating in necrosis; finally, suppuration of periosteum, and occasionally formation of an involucrum.

The chief interest in this case is the long continuance of the disease. Acute osteo-myelitis is well known to be a rapidly fatal disease, and I can find no record of chronic cases that have lasted so long. In this femur, nature appears to have made an effort to arrest the upward progress of the disease by filling the medullary canal with new osseous tissue; the bones of the lower extremity are evidently much changed, but the operation was only made yesterday, and I have only found time to examine the femur. I will make a careful examination of the remaining bones, and report at the next meeting of the society.

The more acute disease, osteo-myelitis, is well shown in the admirable illustrations of diseases of the bones by Stanley, plate 7, fig. 1, and in plate 56, fig. 6, Lancereaux's Anat. Path. These I exhibit to the members.

DR. PEUGNET remarked that in the majority of cases of osteomyelitis, the patient's limb as well as life might be saved by early and judicious treatment, and cited the case of a sergeant of the N. Y. Voluteers who received a gunshot wound at the battle of Cold Harbor, on the 4th of June, 1864.

The ball entered Scarpa's space, midway between its base and apex, on the inner margin of the sartorius, glanced on the outer aspect of the femur, and lodged in the muscles of the posterior femoral region.

On the 14th of June, the ball was removed, at Alexandria, Va., at the original point of entrance, without any counter-opening having been made.

On the 30th of July, having come home on furlough, he was called in to see him, and found him suffering intensely, and recognizing symptoms of periostitis, and probably ostitis, he divided the periosteum on the outer aspect of the thigh, three inches below the trochanter, and told him that this would afford him temporary relief, and that the surgeon in charge at David's Island would probably make an opening in the bone, on his return three days after; the wound was, however, allowed to heal.

On the 25th of May, 1865, having been transferred to Albany, the surgeon in charge made an incision at the same point at which he had originally made one, and trephined the femur.

On the 21st of April, 1866, having been discharged from the army a short time before, and again come under the doctor's care, he found him suffering with symptoms of pyæmia; the entire femur, from the trochanter down to and including the condyles, had become involved, the thigh was very much enlarged, and there was considerable tumefaction of the knee; two or three fistulous openings had formed on the anterior and external surfaces of the thigh, and the pain was at times intense.

The question of amputation, or a free incision from the trochanter downwards, separation of the periosteum, and the laying open of the entire medullary canal down to the cancellated tissue, suggested themselves; the latter operation was selected as giving the greatest chance. With the assistance of Drs. Stone, of West Farms, and Horsfield, of Fordham, the patient having been previously placed under the influence of chloroform, he made an incision on the external surface of the thigh, from the trochanter downwards, measuring ten and a half inches in length, then separated the periosteum on the anterior and posterior surfaces of the femur, which allowed the escape of a quantity of pus; the femur was very much enlarged, and several cloacæ had formed; he then trephined it at four or five points, and with a chisel and mallet laid open the entire canal, from which a large quantity of offensive pus escaped; the patient's general health rapidly improved at first; the enlargement of the femur about the condyles, and tumefaction of the knee rapidly subsided; but in the summer of 1867 he had two attacks of hæmoptysis, and an attack of dysentery, which reduced him considerably.

On the 1st of September, 1867, having consented to submit to an operation without taking an anæsthetic, with the assistance of Dr. Francis M. Purwy, of New York, then a student of medicine, he made an incision along the middle third of the thigh to a point below its junction with the lower third; but as the involucrum prevented the removal of the sequestrum, an opening was made between the lower and middle third of the thigh, as the sequestrum was too long to admit of its removal entire. The lower end was broken off and then removed. The long or upper end measured six inches, the lower two and a half inches. The patient fainted, but soon rallied. He made a rapid recovery; walked a mile on the 11th of December, and resumed his occupation as a carpenter in January, 1868, and has been at work ever since.—*Medical Record.*

OHIO STATE MEDICAL SOCIETY—TWENTY-SEVENTH ANNUAL MEETING.

Portsmouth, June 11th, 12th, and 13th, 1872.

FIRST DAY—MORNING SESSION.

The Society met in Wilhelm's Opera House at 10 o'clock, and was called to order by the President.

Rev. Dr. Burr, of the Episcopal Church, opened the meeting with prayer.

Vice-Presidents Drs. C. P. Landon, E. Sinnett, and J. W. Russell took seats on the stand.

Secretary Dr. J. W. Hadlock was present.

Ex-President Dr. Hempstead was escorted to the stand and introduced as one of the earliest Presidents of the Society. Also Ex Presidents Drs. E. B. Stevens, Kincaid, and Dunlap took seats on the stand.

Dr. Jones, of Portsmouth, moved that the reading of the minutes of last year's meeting be dispensed with. Carried.

REPORTS OF COMMITTEES.

Dr. Pixley made the report of the Executive Committee as follows:

Your Executive Committee wish to report that they have secured the use of Wilhelm's Opera House for the Society.

The Committee suggest that the meetings be held at 9 o'clock A. M., and at 2 o'clock P. M. On Wednesday at 9 o'clock A. M., Election of Officers; at 2 o'clock P. M., President's address; at 4 o'clock P. M., Display of Water Works; at 9 P. M., The Society is invited to a Banquet given by the citizens, at the Opera House. Thursday, at 11 o'clock, invitation to visit Gaylord & Co.'s Rolling Mills, and Burgess's Steel and Iron Works.

Arrangements for the reduction of fare to members and their families have been made with the following railroads, viz., Marietta and Cincinnati; Cincinnati, Hamilton, and Dayton; Cincinnati, Sandusky, and Cleveland; Columbus and Hocking Valley; and the Baltimore and Ohio.

A. B. Jones, M. D., Chairman.
C. M. Finch, M. D.
M. S. Pixley, M. D.
L. Schwab, M. D.

Dr. A. B. Jones, of Portsmouth, welcomed the Society in the following neat address:—

Mr. President,

Gentlemen of the Ohio State Medical Society and others: The Profession of Portsmouth has made it my pleasing duty to formally extend to you their kindliest greetings. This I do with mingled emotions of pride and pleasure—of pride, when I reflect that this society has numbered among its members, physicians, surgeons, and specialists, peers to any the world has ever produced; and upon whose worthy shoulders now rest the mantles of the great departed. Of pleasure, in giving my right hand with the hearty God bless you to our home—to our quiet little city.

We all, both in and out of the profession, fully appreciate the very distinguished honor you have conferred upon us by bringing here the ripe sheaves as the fruit of your past year's sowing, working, and reaping, to be gathered among us. Then let us rejoice and make merry together; and when the day's work is done, remember the last load of corn for the year has been brought home; and, when you retire to rest to-night, let no nervous or fitful dreams, for fear the loud rattling of the door-bell may summons you, in the still watches of the night to again go over and over your weary rounds with your still more weary limbs.

We hail your advent in our city as the dawning of a new era in our profession here. So many great and good men, whose lives and energies have been devoted to the relief and comfort of others, cannot come and go without leaving an impress behind them of good. I trust our meeting together on this occasion will not only be a pleasurable, but also a profitable one; and that each one of you may return to your respective fields of labor and usefulness, refreshed in body, strengthened in mind, and cheered with hope—hope of the hopeful, whose reward consists in the self-gratulatory feelings of having done one's duty by lightening the burden of life which man inherited when he fell, and brought death into the world and with it all our woes. Yours can never be the reward of gold. Schiller tells us that at the sharing of the earth, the husbandman, the merchant, the lawyer, the monarch, all got their share, and even the parson came in for his wine, while the poet, who had been holding up nature's mirror to each fond professor, got nothing; so in utter dismay he appealed to the gods. Jove asked him where he had been when the earth was divided. "I was," said the poet, "with thee, and so enraptured was I with thy world as to love every portion of it." "Alas, alas," said the god, "earth is given! Field, forest, and market, and all! What say you to quarters in heaven? We'll admit you whenever you call." Now gentlemen, I have no doubt but that the gods have reserved a place for the doctors up there with them; and if so, I know you will be thankful.

Another year since last we met has closed its book and stamped its record forever; time, too, with his sickle, has been reaping. He spared not even the healer, and among them, he has taken into the dark beyond the immortal Blackman, whose name is now never spoken, either by friend or foe, without profound admiration. Many others of us have gone over into the unknown world to shed their lustre there; and methinks, that as one by one of our social few goes over, it will lessen the darkness of the gloom; and soon, very soon, our society will number more there than here. Then let us forget not, while we are trying to cool the fevered brow or relieve the burning thirst, to drink deep, ourselves, of the pure waters of Siloam.

Report of Executive Committee was adopted.

DR. E. SINNET, with appropriate remarks, presented to the Society a beautiful silver mounted gavel.

REPORT OF TREASURER.

The report of the Treasurer showed a balance of $12.81 in the treasury. Report received and referred to committee on finance.

DR. W. J. CONKLIN, of Dayton, was, at this juncture, appointed Secretary *pro tem.*

MISCELLANEOUS BUSINESS.

DR. BARTHOLOW moved that all papers be read by abstract not to exceed twenty minutes in reading. After some discussion the motion prevailed—when DR. J. B. THOMPSON moved a reconsideration of the matter for the purpose of so modifying Dr. Bartholow's motion that the rule shall not apply to the reading of papers this year. A reconsideration was had, and Dr. Thompson's modification prevailed.

VOLUNTEER PAPERS.

Volunteer papers being called for, Dr. Bartholow announced a paper on "Aneurism of the Basilar Artery."

DR. E. SINNET announced a volunteer report of "Two case of Monstrosity."

DR. GAY presented a pathological specimen with the following history of case of heart incased in bony formation:

Mr. A., aged 28, came into the hospital of the Ohio Penitentiary, stating that he had liver complaint, and had been under treatment eight or nine years, before he came to the penitentiary, for disease of liver. On examination, I found the lower margin of the liver on the right side five inches below the ribs. He had the appearance of a case of a fatty degeneration of the liver. After some months, I found he had tubercular disease of the left lung. Dropsy came on in abdomen and lower extremities. He was relieved from time to time by the usual remedies, but the effusion soon returned, and he died from exhaustion on the 19th day of March, 1872.

Post-mortem by Dr. Clark, Superintendent. The liver nearly twice the normal size, and a well marked specimen of what is known as a fatty degeneration of liver. There was, also, large masses of tuberculous deposit in different points which I should think were of subsequent date to the fatty disease, and had been deposited since his confinement as a criminal. The other viscera of the abdomen were quite healthy. The left lung was filled with tubercular deposit, with a large abscess adhesion of the pleura. The muscular system was in good condition, well-developed, and good color. In continuing our examination of the chest, we found an unusual heart,—which I will now show you. The bone covering the anterior and part of the posterior surface of the heart, measured, transversely, four and a half inches; vertically, five and a half inches; extending over the apex, and upon posterior surface one and three-quarter inches; and in many parts one-eighth of an inch in thickness, and very firm. On the line opposite where the two ventricles are attached, the bone is quite thin, anterior and posterior. From examination of where it is sawed into, I think the bone was developed in the parietal layer of the pericardium, but as we get to the posterior part of the heart, we find no appearance of a pericardium. From its appearance, I think this was congenital, and not a transformation of the pericardium. On the right side, the pleura is healthy with no diseased attachment to the bony case. Anteriorly and posteriorily there was no appearance of disease. On the left side, we had disease extending from the left lung, which was filled with tubercles and abscesses. The cavities of the heart were larger than normal; the valves healthy; the sounds of the heart were natural, but feeble; impulse slight; the action was regular and slow; good circulation of extremities; had great difficulty in breathing after the lung became affected, but not before.

In answer, Dr. Gay stated that a specimen of the bony case had been subjected to microscopical examination and found to be true bone.

The following named gentlemen were favorable reported on for membership and unanimously elected: Robert Wesley, Athens; D. T. Davis, Dayton; W. V. Peck, New Richmond; Thomas G. Vaughters, Portsmouth; David Coleman, West Union; J. L. Wylie, Ripley.

The President announced the committee on finance as follows: Drs. Jones (of West Liberty), E. B. Stevens, D. D. Bramble, C. M. Finch, and E. Jenning.

Drs. S. S. Scovill and Bartholow were announced to read papers during the afternoon session.

The Society then took a recess until 2 o'clock P. M.

AFTERNOON SESSION.

The following names were presented for membership and unanimously elected: A. Andrus and D. W. Coffee, of Westerville; B. F. Kitchen, Clay P. O.

A question here arose as to the status of members of this Society who came as delegates from auxiliary societies. On motion of Dr. Miles, the subject was referred to Committee on Medical Societies.

The Finance Committee here made a partial report as follows: Recommending rigid economy in getting out transactions. Pay Treasurer $150 salary; Secretary to receive no salary, but to have traveling and incidental expenses paid by the Society. Annual dues, $3.—Report received.

Dr. Gray moved that the salary of the Treasurer hereafter be $50 instead of $150.—Carried.

Dr. Kincaid moved that the annual dues be fixed at $2 instead of $3, as recommended by the Committee.—Carried. Report was then adopted.

Dr. J. B. Thompson here offered his resignation as Treasurer. Resignation accepted, and Dr. Gray elected Treasurer of the Society.

The President announced the Committee on Medical Societies as follows: Drs. A. C. Miller, Miles, Wylie, Hough and Hyatt.

The Committee on Admissions reported the following named gentlemen for membership, who were unanimously elected: James L. Taylor and J. A. Warren, Wheelersburg; W. A. Frizzell, Buena Vista.

REPORTS OF SPECIAL COMMITTEES.

DR. S. S. SCOVILLE, of Lebanon, having previously been announced, read a report on "Nervous Transmission." The report was elaborate, read with energy, and listened to with marked attention by the members of the Society. Remarks on the report by Drs. Hough and Scoville, after which the report was received and referred to Committee on Publication.

DR. R. BARTHOLOW read a report entitled "Some Points in the Therapeutics of Electricity, illustrated by cases." The report was well received and listened to attentively by the members. Remarks on the report by Dr. Reed, who reported cases confirming the position taken by the author of the report, on the value of electricity as a therapeutical agent. Drs. Hough, Miller, and Scovill also made remarks touching the report. Report received, and referred to Publication Committee.

DR. LANDON moved that the Society take a recess until half-past seven o'clock in the evening.—Carried.

EVENING SESSION.

REPORTS OF SPECIAL COMMITTEES CONTINUED.—DR. A. T. KEYT read a report on the "Semiological Value of Yellow Elastic Tissue in Sputum."

The Society then adjourned to meet Wednesday morning at 9 o'clock.

SECOND DAY.—MORNING SESSION.

REPORTS OF COMMITTEES.—The Committee on Medical Societies made their report as follows:

MR. PRESIDENT:—Your Committee on Medical Societies, having had under consideration the matter which to them was referred, beg leave to report the following as the result of their deliberations, viz:

1st. That in accordance with Article VII., of the By-laws of the Ohio State Medical Society, it is the opinion of your committee that societies represented by the delegates are subjects for consideration in committee and not the delegate.

2nd. That in accordance with the foregoing, your committee have examined the credentials of S. S. Scovill, M. D., and J. B. Hough, M. D., regularly appointed delegates from Lebanon Medical Society; of C. R. Reed, M. D., representing the Meigs County Medical Society; of H. C. Waterman, M. D., of Middleport, representing the Meigs and Mason Academy of Medicine; of Drs. A. Blymer and A. Andrus, the Delaware County Medical Society; of Dr. J. W. Coble, the Central Ohio Medical Society; of Drs. N. S. Hill, W. V. Peck, W. L. Anderson, A. W. Ashburn, R. B. Davy, Eugene Moore, R. C. Moore, the Clermont County Medical Society; and of Drs. D. B. Cotton and W. J. M'Dowell, representing the Scioto County Medical Society, and find that said Societies are in good and regular standing as Auxiliaries of this Society, and that said delegates, by virtue of their appointment, are entitled to a part in the deliberations of this Society.

3rd. That your committee have examined the Constitution and By-laws of the "Delaware Medical Institute," and find that they strictly conform to the requirements and usages of this Society, and recommend it be made auxiliary to the Ohio State Medical Society.

4th. *Whereas*, there does not appear to be any established usage in the transactions of this society regulating and governing delegates from societies made auxiliary to the Ohio State Medical Society, and,

Whereas, to avoid controversies hereafter, and for the more uniform government of said delegates, be it therefore

Resolved, That delegates, representing Auxiliary Societies in good standing, shall, upon satisfactory evidence, be entitled to take part in the deliberations of said Society during the session for which they were elected, but shall not be entitled to membership or other considerations unless they become a regular member of this Society, and pay the usual initiation fee.

Respectfully submitted, A. C. Miller, J. L. Wylie, A. J. Miles, E. H. Hyatt, and J. B. Hough, Committee.

The Committee on Finance, after having examined the books and accounts of the Treasurer, made their supplemental report as follows:

Mr. President:

Your Committee on Finance have examined the book accounts and vouchers of the Treasurer, and find them all correct.

We recommend the payment, to the estate of Dr. Hall (lately deceased), the balance of his salary for 1871, of $25; also account rendered by Dr. Hall (for postage) $2.70.

Dr. Hadlock, as Secretary, presents a bill of items $25.20, which we recommend to be paid

A bill, for salary of Dr. Hadlock, as Secretary, for $50, we do not feel authorized to allow; but we recommend the payment to Dr. Hadlock of whatever expenses he may have incurred additional to the above, in performing the duties of Dr. Hall during his disabilities. Respectively submitted, L. M. Jones, C. M. Finch, E. Jennings, Edward B. Stevens, D. D. Bramble, Committee.

During the morning session the Executive Committee presented the following communication :

PORTSMOUTH, O., June 12, 1872.

Drs. Pixley, M'Dowell, and Bing, Executive Committee:

Gentlemen :—The undersigned Committee of the Board of Trade of our city, in behalf of the body we herein represent and of the citizens generally, hereby extend to the members of the Ohio State Medical Association, now here assembled in convention, a cordial invitation to accept an entertainment to be given them by said Board, and the citizens, at Wilhelm's Opera House this evening, the 12th inst., at 9 o'clock.

Very Respectfully,
Thos. Dugan, George Davy,
R. Bell, P. Tainey,
Jas. Rumsey, Committee.

On motion the above invitation was accepted.

The following named gentlemen were presented for membership and unanimously elected: E. D. S. Morgan, Berlin; D. C. Wilson, Ironton; Emil Arnold, Ironton; C. M. Wilson, Miami Springs; H. K. Steel, Denver, Colorado, Honorary member; P. Beeman, Iola, Allen Co., Kansas, Honorary member.

ELECTION OF OFFICERS.

The election of officers for the ensuing year resulted as follows:—President, Dr. A. B. Jones, of Portsmouth; Vice Presidents, Drs. A. Blymer, Delaware, J. D. Cotton, Marietta, W. J. Anderson, Newtonville, and J. B. Hough, Ridgeville.

Treasurer and Librarian, S. S. Gray, M. D. Piqua, Miami County, Ohio.

Secretaries, J. W. Hadlock, M. D., Cincinnati; W. J. Conklin, M. D., Dayton.

Committee on Admission, Drs. M. Cassat, N. S. Hill, S. S. Scoville, T. W. Gordon, E. H. Hyatt.

REPORTS OF SPECIAL COMMITTEES CONTINUED.

Dr. J. B. Hough, from Special Committee, read a report on "Medical Chemistry." Report received, and discussed by Drs. Kincaid, Scoville, Miles, Bing, Hyatt, Gordon, Reed and Frizzell.

At the close of the discussion, Dr. Hyatt introduced the following resolution, which was unanimously adopted:

Resolved, That the sense of this Society is that a better knowledge of Medical Chemistry, on the part of students, preparatory to entering the profession is demanded, and that the profession of Ohio is pledged to the work of bringing about a reform in this department of medical education.

Dr. Gay, of Columbus, presented the Society specimens of wire gauze apparatus for treatment of fractures. Society then took a recess until 2 o'clock P. M.

AFTERNOON SESSION.

During the afternoon session the following new members were elected: Drs. J. P. Primrose, Nelsonville, James Moor, Ironton, C. B. Hall, Millersport, and Camillus Hall, Burlington.

VOLUNTEER PAPERS—REPORTS OF CASES.

The President announced that owing to the amount of business before the Society Dr. Bartholow withdraws his paper on "Aneurism of the Basilar Artery."

Dr. A. Andrus read the following report of a case:

AN ANOMALOUS CASE OF CARCINOMA.

T. S., male, age 46, temperament—nervous sanguine; for several years had not been in vigorous state of health.

History of the case previous to medical attendance.—October 1st, noticable indisposition; there was pallor of the countenance; variable appetite; constipation of the bowels; coldness of the extremities; pulse somewhat accelerated.

February, 1872, experienced pain and lameness in the left hip and limb; pain at times acute and extending to the knee. There was swelling and hardness of the muscles about the hip, which, for a time, seemed to increase. At this time there was an inability to walk without the use of a cane.

March 25th, 1872, was first called to see the patient. *Abnormal manifestations:*—General debility; loss of appetite; constipation of the bowels; urine highly colored and containing large amount of sediment; tongue coated with yellowish fur; pulse feeble and ranging from eighty to one hundred; extremities cold; restlessness at night.

There was experienced at this time pain in the right hip, extending down the limb, with swelling and hardness of the muscles. Sharp pain in the left limb had subsided. Soreness in the hips so great that there was an inability to lie upon either side, patient being obliged to rest upon the back. There was swelling and hardness of the muscles of other parts of the body, especially of the right arm. At this period of the disease (Mar. 25th), there was ecchymosis in the bend of the right arm, extending over a surface from four to five inches in diameter, which in course of a few days disappeared. The back also became ecchymosed, having a dark purple and yellowish hue, extending from the hips to the tops of the shoulders, which condition continued until death. Sometime during the forepart of March, there was observed, first upon the head, a small tubercle or tumor, in size "as large as the end of the finger." From this time to the 15th of March a few were noticed upon the arm, and in a few days several upon other parts of the body. After this period the development of tubercles or tumors was remarkably rapid; within the short space of two or three weeks—from the latter part of March to the 15th of April—their number had augmented to one-hundred and fifty or two-hundred. What seemed most remarkable, they appeared to "sprout up," and become fully developed in the short space of twenty-four or thirty-six hours, attaining their full size, and making no perceptible increase thereafter.

These tumors varied in size from that of a millet seed to a hickory-nut. In form, some were round; others oblong or oval. In structure, lobulated, and having an elastic feeling, and were principally located in the subcutaneous cellular tissue. A large proportion of them presented no discoloration of the skin, while others were of a purple or dark purple appearance. After a full development of the diseased condition, about the middle of March the vital forces were rapidly overcome, and the patient sank and died from exhaustion on the 30th of April, 1872.

Post-mortem revealed in the abdominal cavity a large number of tumors situated upon the serous membranes, in character and size such as were found upon the surface of the body. Some were located upon the diaphragm; a large number upon the folds of the mesentery; and one or two upon a reflection of the peritoneal membrane covering the liver. There were none in the liver, spleen, pancreas, or kidneys; these organs were in a comparatively healthy state. The psoas muscles were found to be in a swollen and hard condition. The chest and cranial cavity were not examined. Upon section of the swollen muscles there was found what appeared to the naked eye extravasated blood, in a partially decomposed state. After the death of the patient, several of the tumors were examined microscopically, Drs. Loring and Franklin, of Columbus, taking part in the examination.

From the manifestations obtained in this examination,—the cell-form and its peculiar structure—the conclusion arrived at was that these tumors were carcinomatous, and, in character, encephaloid or melanotic.

Report received, and discussed by Drs. Dunlap—who reported a similar case—Hyatt, Miller, Bartholow, Sinnett, and C. P. Landon.

Dr. Miller, with remarks, reported a case which much resembled the case of Dr. Andrus. Dr. C. P. Landon, having seen the case of Dr. Andrus in consultation, gave it as his opinion that the tumors were due to scrofulous or tuberculous deposits. Dr. Bartholow spoke of the cases as possibly multiple adenoma, which was known to be a very dangerous form of disease.

To this suggestion, Drs. Andrus and Miller replied that in neither of their cases were there any symptoms of implication of the glandular system; on the contrary, the family history of their patients proved a cancerous diathesis.

Dr. E. Sinnett reported a case which bore some resemblance to the cases of Drs. Andrus and Miller.

The paper was then received and referred to Committee on Publication.

Dr. Gay moved that when the Society closes its meetings at this place it adjourns to meet in Columbus, on the second Tuesday in June, 1873.—Carried.

The Society then adjourned until Thursday morning at 9 o'clock. After adjournment the Society was entertained by a visit to the Holly Water Works, and the extensive shoe factory of Resenberrick, Drew & Co.

At 9 o'clock in the evening the Society was entertained by the Board of Trade and the citizens of Portsmouth with a sumptuous banquet given in the Hall of Wilhelm's Opera House. The evening passed pleasantly; good eating, good music, good dancing, good "Big Medicine Man" who administered to the thirsty in a way to be remembered by all who came under his treatment.

THIRD DAY.—MORNING SESSION.

The Society was called to order by the President. Dr. Thad. A. Reamy exhibited an instrument of his own invention for intra-uterine medication.

Dr. Thomas H. Kearney read his report from special Committee on Amputations. Report received and was referred to Committee on Publication.

Dr. Bing moved that Dr. A. G. Sellards, of Vanceburg, Ky., who was present, be admitted to the courtesies of the Society. Carried.

Dr. L. M. Jones, of West Liberty, read a report from standing Committee on Obituaries, in place of the Chairman, Dr. B. B. Leonard, who was not present. Report received, and, after some remarks by members to the effect that the report was not complete since it did not embrace a notice of all who have died of our number the past year, was adopted.

Dr. E. B. Stevens moved that a committee be appointed to report on the death of our late Secretary, Dr. W. C. Hall.—Carried. The President appointed Dr. Stevens as the Committee.

Dr. A. C. Miller was appointed a Committee to report on the death of Dr. Cary, of Salem.

Dr. Alex. Dunlap was appointed a Committee to report on the death of Dr. Kyle, of Xenia.

Dr. A. B. Jones requested that his report from special Committee on *Relation of the Mental to Man's Physical Forces* be read by title and referred to Publication Committee.

On motion of Dr. Bing it was so read and referred.

A communication was here received and read by the Secretary from Dr. Geo. Mendenhall, embodying the following resolutions:

Resolved, That a committee of five, of which Dr. Clendenin be Chairman, be appointed to prepare a memorial to the Legislature of this state, on the subject of Public Health, in accordance with the resolution of the American Medical Association presented by Dr. T. M. Logan, of California.

Resolved, That this Committee co-operate with Dr. A. E. Jenner in reference to the bill presented by him in the Senate of Ohio.

Resolved, That this Committee shall prepare a suitable memorial and have five-hundred copies printed and distributed to the members of this Society for signatures, and draw upon the Treasurer for the amount expended for the same.

On motion, the resolutions of Dr. Mendenhall were so amended as to instruct the Committee to report upon the subject of a State Board of Health, at the next meeting of this Society.

Dr. Clendenin not being a member of this Society, the President appointed Dr. Geo. Mendenhall, J. R. Black, P. S. Conner, G. B. Orr, and Geo. E. Walton, Com. on State Board of Health.

Dr. Miller stated that Dr. Joel Pomerine had a report ready from the special Committee on *Puerperal Convulsions*, but was unable to be present to read his report, and therefore requested to be continued on the same Committee until next year. By vote of the Society Dr. Pomerine was continued as he requested.

The President announced the following

STANDING COMMITTEES:

Executive,—N. Gay, J. B. Thompson, J. W. Hamilton, C P. Landon, R. M. Denig.

Publication,—J. W. Hadlock, W. J. Conkling, E. B. Stevens, S. S. Gray, C. M. Finch.

Medical Societies,—J. P. Bing, M. S. Pixley, Louis Schwab, A. C. Miller, J. H. Green.

Finance,—L. M. Jones, E. Jennings, E. B. Stevens, C. M. Finch, D. D. Bramble.

Admissions,—M. Cassat, N. S. Hill, S. S. Scoville, T. W. Gordon, E. H. Hyatt.

Obituaries,—T. W. Gordon, David Cotton, E. H. Hyatt, E. Sinnet, Alex. Dunlap.

SPECIAL COMMITTEES.

Castration for Epilepsy—M. S. Pixley, Portsmouth.

Quinine—S. S. Gray, Piqua.

Progress of Surgery during the year—P. S. Conner, Cincinnati, J. L. Wylie, ——

Exsection of the Hip Joint—D. D. Bramble, Cincinnati.

Insanity—D. A. Morse, Cross Roads.

Therapeutics of Alcohol—E. H. Hyatt, Delaware.

Consumption in Ohio Penitentiary—N. Gay, Columbus.

Stricture—A. C. Miller, Orriville.

Ophthalmology—J. H. Buckner, Cincinnati.

Syphilitic Affections of the Nervous System—W. J.. Conklin, Dayton.

Nervous Diseases—R. Bartholow, Cincinnati.

Pathology and Treatment of Diptheria and Scarlet Fever—J. W. Hoff, ——

Small Pox—E. Jennings, Dayton.

The Distinction between Caseous Pneumonia and True Tubercle—A. T. Keyt, Walnut Hills, Cincinnati.

Urinalysis—J. W. Russell, Mount Vernon.

Functions of the Spleen—S. S. Scoville, Lebanon.

Cerebro-Spinal Miningitis—A. B. Monohan, Jackson.

Skin Grafting—T. D. Davis, Dayton.

Gastric Irritation— E. Sinnett, Granville.

Nervous Diseases—N. S. Hill, Newville.

Incurable Diseases—J. P. Bling, Portsmouth.

New Remedies—C. R. Reed, Middleport.

Treatment of Ulcers and other Cutaneous Diseases of the Lower Extremeties—D. M Finch, Portsmouth.

Efficacy of Vaccination—David B. Cotton, Portsmonth.

Small-Pox — A. G. Stevenson, New Richmond, M. Cassat, Cincinnati.

Shoulder Presentations—W. V. Peck, New Richmond.

Epilepsy—N. S. Hill, Newville.

Cataract—W. W. Seely, Cincinnati.

DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION.

E. H. Hyatt, Delaware.
L. M. Jones, West Liberty.
E Sinnett, Granville.
M. Cassat, Cincinnati.
L. Schwab, Portsmouth.
J. D. Cotton, Marietta.
E. Jennings, Dayton.
C. R. Reed, Middleport.
J. B. Hough, Ridgeville.
John W. Russell, Mt. Vernon.
S. S. Scoville, Lebanon.
C. P. Landon, Westerville.
A. J. Miles, Cincinnati.
T. H. Kearney, Cininnati.
G. W. Pullin, Logan.
A. C. Miller, Orriville.
W. F. Paige, Johnstown.
Joel Pomerine, Millersbugh.
J. R. Black, Newark.
Dudley Allen, Oberlin.
W. T. Ridman, Toledo.
J. C. Brown, Urbana.
John Bennett, Cleveland.
H. Culbertson, Zanesville.
H. S. Conklin, Sidney.
L. S. Ebright, Middleburg.
W. P. Kincaid, New Richmond.
B. Gundry, Dayton.

R. W. Erwin, Athens.
J. W. Hadlock, Cincinnati.
A. C. Brainard, Orangeville.
S. S. Gray, Piqua.
A. Dunlap, Springfield.
J. B. Thompson, Columbus.
N. Gay, Columbus.
Thos. W. Gordan, Georgetown.
W. V. Peck, Columbus.
G. Mitchell, Mansfield.
J. C. Hubbard, Ashtabula.
David Noble, Hillsboro.
T. G. McEbright, Akron.
W. D. Scarf, Bellefontaine.
O. G. Seldon, Shanesville.

Dr. E. B. Stevens introduced the following resolutions:

1st. That the thanks of the society are due to the officers of this session for their ability and impartiality;

2nd. *Resolved*, That we return thanks to the several Railroad Companies who have extended their courtesies to the members in attendance.

3rd. *Resolved*, That we are especially indebted to the Profession, the Board of Trade, and to the citizens generally of Portsmouth, for the magnificent hospitality and thoughtful attention which we have received; in the words of Rip Van Winkle, "May they live long and prosper."

A rising vote was given in the affirmative to all the above resolutions; when at twelve minutes to 12 o'clock M. the gavel fell and the twenty-seventh annual meeting of the Ohio Medical Society was declared adjourned to meet in Columbus on the second Tuesday in June, 1873.

[Portsmouth, situated in a broad valley, and surrounded by beautiful hills, with her genial hospitable citizens, will long be remembered by all those in attendance upon the meeting just closed. From the time we stepped upon her wharf until the steamer, which was to bear us home, left her shores, nothing but cordial hospitality greeted us on every hand; not a jar, not a discordant sound, not an unpleasant thing to mar our remembrance of her and her citizens occurred during our stay of three days within her limits.—J. W. H.]

METHOD OF DETECTING SMALL QUANTITIES OF SUGAR IN URINE.

Dr. J. Seegen, Professor in the University of Vienna, says, in the *British Medical Journal*, Trommer's is the most reliable and delicate test for sugar. With its aid I am able with certainty to make out 0.3 *milligramme* (0.0046 grain) of sugar dissolved in 10,000 times the amount of fluid. This great delicacy of the test, however, only holds good as long as we have to do with a watery solution of sugar. If, on the contary, small quantities of sugar are to be detected in urine, Trommer's test is neither delicate enough nor reliable, for two reasons. 1. Urine contains certain substances (coloring matters, creatine) which prevents the suboxide of copper when formed from being precipitated; no separation of the reduced suboxide of copper therefore, takes place, the blue fluid only becoming yellow or yellowish-brown, or presenting a turbid discoloration. 2. The same processes of reduction are also brought about by uric acid; and urine containing a considerable amount of uric acid acts on Fehling's test-fluid exactly in the same manner as urine containing 0.1 to 0.2 per cent of sugar.

The method divised by me has for its object the exclusion of those other constituents of urine which would disturb the proper action of the test, and the transformation, as it were, of the saccharine urine into a watery solution of sugar. Animal charcoal has the property of retaining most of the constituents of urine, more especially the coloring matters and uric acid. After filtering a watery solution of uric acid through animal charcoal I could (provided the charcoal had been good), after repeated filtrations, not find a trace of uric acid in the filtered fluid. Now, in order to detect small quantities of sugar in urine, I proceed in the following manner:

I filter one or two ounces of the urine several times through good animal charcoal until the urine is completely colorless. This operation only takes a few minutes. Then I wash the charcoal on the filter with a little distilled water, and to this water, when filtered off, I apply Trommer's test. The water with which the charcoal has been washed is almost as sensitive to Trommer's test as a watery solution of sugar, and in it I could detect even 0.01 per cent. of sugar by a beautiful red precipitate of suboxide of copper, whilst the original saccharine urine, when not filtered, only produces a yellow discoloration of Fehling's test fluid. With urine containing a little more sugar—say, 0.1 to 0.2 per cent.—the water flowing off from the second and third washing, acts even more energetically upon the test-fluid than that of the first washing, producing an even purer deposit of suboxide of copper. The water obtained by the subsequent washings thus evidently contains the sugar in a purer form. With normal urine, the water obtained by the above process is either entirely inactive towards Fehling's test-fluid, which remains blue, or it assumes only, after a while, a slight dichroid (varying color according as the light falls on or passes through) turbidity. The water obtained by a second and third washing always remains without any effect. When the quantity of sugar has to be determined, the urine must not be filtered through charcoal, as the latter always retains a certain quantity of the sugar which cannot be removed again by washing.

Book Notices.

Lectures on the Principles and Practice of Physic. Delivered at King's College, London, by Sir Thomas Watson, Bart. M. D., F. R. S. In 2 vols. From the fifth revised and enlarged English edition. Edited with additions and numerous illustrations by Henry Hartshorne, M. D. Philadelphia: Henry C. Lea. Cincinnati: R. Clarke & Co. 1872.

The most readable medical work of any kind with which we are acquainted is Watson's "Principles and Practice of Physic." Take up either one of the volumns and open it at random, and one becomes immediately interested with what falls under his notice. Certainly Dr. Watson is the most entertaining medical writer with whom we are acquainted. One can follow him along in his treatment of disease with the interest felt in the perusal of an entertaining history or book of travels. It is not necessary to wait until the mind is the clearest before sitting down to study his work, as is the case with many authors, for the attention becomes immediately engrossed in the subject by the attractiveness of the style with which it is treated, and the dormant powers are excited into action.

With the assistance of Prof. Geo. Johnson, the author has thoroughly revised this work, and has sought to bring it on a level with the most advanced conditions of the subject. "Carefully passing in review some of the most intricate and important pathological and practical questions, the results of his clear insight and his calm judgment, are now recorded, for the benefit of mankind, in language which, for precision, vigor, and classical elegance, has rarely been equalled, and never surpassed. The revision has evidently been most carefully done, and the results appear in almost every page."

In the present American edition, wherever it could be done with justice to the present state of medical opinion and experience, use has been made of the able and erudite comments and additions of Dr. Condie, given in the American edition of 1858. The present editor has commented at the greatest length upon medical Thermometry, the pathology of Croup, the causation and prevention of Yellow Fever and Cholera.

Clinical Lectures on the Diseases of Women. By Sir James Y. Simpson, Bart., M. D., D. C. L., late Prof. of Midwifery in the University of Edinburg. Edited by Alexander R. Simpson, M. D. New York: D. Appleton & Co. Cincinnati: R. Clarke & Co. 8vo. pp. 789. 1872

The editor states in the preface that the greater number of the Lectures contained in this volume appeared in the *Med. Times and Gazette* during the years 1859 and 1861. They were printed from notes which he took of the lectures at the time of their delivery, and afterward extended; and the proof-sheets were corrected by the author.

We feel confident that the profession, everywhere, will rejoice in having these lectures of Prof. Simpson embodied permanently in book form. No greater gynaecologist than he ever existed, and his writings will ever be prized. He, in fact, made gynaecology a science—advancing it by his talents and arduous labors to an extent far beyond what it had ever attained to before him. Every physician who is at all interested in diseases peculiar to females—and where is one who is not?—will undoubtedly seek to have a work of so high authority, as this one is, on the shelves of his library, The work contains fifty lectures; and, besides very many of the other diseases of women, we have treated Vesico-Vaginal Fistula, Pelvic Cellulitis, Pelvic Peritonitis, Pelvic Hematocele or Hematoma, Cancer of the Uterus, Carcinoma of the Uterus and Mamma, Dysmenorrhea, Closures and Contractions of the Vagina, Caruncles of the Urethra, Neuromata of the Vulva, Abscess of the Labia Pudendi, and various forms of Vulvitis, Surgical Fever, Phlegmasia Dolens, Spurious Pregnancy, Ovarian Dropsy, Cranioclasm, Puerperal Mania, Sub-Involution of the uterus after delivery, Amenorrhea, Fibroid Tumors of the uterus, Polypi of the uterus, Chronic Metritis, Prolapsus Uteri, Retroversion of the uterus.

The work contains many illustrations well executed. The lectures are clinical, and therefore of a highly practical character.

Editorial.

CINCINNATI COLLEGE OF MEDICINE AND SURGERY.—The Commencement exercises of the thirty-second course of lectures of the Cincinnati College of Medicine and Surgery were held in College Hall, Tuesday evening, June 25th. The exercises were opened with prayer by the Rev. A. N. Spahr, after which Prof. D. D. Bramble, M. D., Dean of the Faculty, presented the annual report. He referred with pride to the successful course which the institution has run, until now over one thousand practitioners of the healing art call her Alma Mater. He spoke substantially as follows:

"As Dean of the Faculty of the Cincinnati College of Medicine and Surgery, it becomes my very pleasant duty to say something on this occasion of the present and future of our college. And first, I will congratulate the friends of the institution that our present meeting marks so auspicious an event as the closing of the 32nd regular course of lectures. It is worthy of note that we have more than preserved our existence, that we have been marching to the tune of progress. Over one thousand practitioners of the healing art regard our institution as their alma mater. We have, at the present time, a well organized institution, equipped in every department, with the best selected and most abundant means of illustration. Excuse me, if I say, too, that we have an able and efficient corps of teachers. We have also purchased a capacious building, centrally located and well adapted for college teaching. The contract has been awarded to a first class builder to remodel it, to be made in keeping with the most modern medical colleges. When completed, we will have a large amphitheater as well as a large lecture room, each having the capacity to seat comfortably over 200 students; a large museum room, faculty and reception rooms. The dispensary room will be on the first floor, and will do away with the necessity of patients' ascending a stairway to reach it (as is the case in many of our medical colleges), thereby adding very much to the comforts of the sick. We will have a large and well ventilated dissecting room, that will compare favorably with that of any college in the country, conveniently located in the building and furnished with every convenience. So that we feel justified in saying, that we will have one of the finest college edifices in the West, thus making an additional attraction for medical students to come to Cincinnati.

When medical teaching first began in Cincinnati, by legislative enactment, the faculty of the Medical College of Ohio, the then only medical college in this city, was made the staff of the Commercial Hospital (now Cincinnati Hospital). This monopoly of the Hospital that institution kept for many years; and, after other colleges were organized, it became a source of great grievance to them, and to the whole profession of the city. Our college, particularly, felt aggrieved; for it felt, under the circumstances, that it was placed at a great disadvantage, its faculty being excluded from clinical teaching, and its students being compelled to seek instructions, in that respect, from a competitor which did not hesitate to make use of the circumstance for its aggrandisement. But, in course of time, this selfish and unjust law was repealed, mainly through the efforts of our school, aided by the profession of the city, and a board of trustees was appointed, with power to choose a staff from whatever quarters it pleased. This having been accomplished, it needed only the spirit of the law to be carried out for each college to profit solely by its own merits in competing on an equality with other schools for patronage. But, selfish men, we are sorry to say, often render nugatory the best designs; so soon as the objectionable law was repealed, a certain clique of physicians planned the filling up of the Hospital Board with their personal friends, for the purpose of having themselves made the staff. Having accomplished this, they resuscitated an old school which had died out several years before; and thus was the Hospital again monopolized by a single school. Not the same one as at first, but by one as objectionable, and probably, more selfish, if such a thing could be. Again was a monopoly to be fought and overcome. It was discouraging, indeed, that the labor of years had to be gone over again. But, remembering that only to the brave and persevering belong the final victory, right manfully did we warm ourselves to the work, and right manfully did we lay hold of the monopoly and struggle with it until it ceased to be. From 1868 until last year, did we carry on the contest, when a rule was passed by the Trustees of the Hospital, which had the effect of excluding the clique which was monopolizing it, and placing all the colleges on a perfect equality in the advantages of its clinics. Thus, it will be perceived, we have spared no toil in placing our school in the foremost ranks of the schools of the country. We have labored hard, but we have the satisfaction in knowing that we have not labored in vain. Keeping an eye single to the welfare of our college, the enemies of its prosperity, both within and without, have been made to succumb. I mention this as an earnest that our alumni will, in no time to come, find their *alma mater* falling behind in the rear ranks of progress. A faculty that has performed the labor that ours has, and brought about such results, and which has purchased a building, second to no other college building, to be owned by it, cannot help but succeed. The college that first monopolized the Hospital, to the disadvantage of other medical schools, and the monopoly of which it in vain tried to maintain, now occupies for its quarters only an old tenement house, which is rented from month to month, while we will be the owners of our own building.

"The size of the class in attendance on the present course, forty-seven in number, compares favorably with former spring courses. The individual members have been gentlemanly in their deportment, faithful in attendance and studious, as has been evinced in their final examination. We have now to report that eighteen of this number have passed a satisfactory examination, and are entitled to receive the degree of medicine, which will be conferred on them by the Rev. Bishop Wiley, D. D."

The Rev. BISHOP WILEY, D. D., President of the Board of Trustees, then delivered the annual address. He said the scene carried him back in memory to the time, twenty-five years ago, when he sat with a class in the University of New York, and received the degree of Doctor of Medicine. He exalted the medical profession to a place, even to the next place below the ministry. Christ, when upon earth, although his mission was to heal souls, did not consider it beneath him to heal bodies, so that He might be considered at once as the head of the ministry and the medical profession. He gave the students earnest practical advice, particularly urging them to abstain from alcoholic stimulants. He said the temptation to a doctor, when exhausted with loss of sleep, fatigue, and anxiety for his patients, to seek to stimulate his flagging powers by the use of ardent spirits was very strong, but he implored the class not to yield to the temptation, but to seek solace in the approval of their consciences that they had done their duty faithfully, and to the best of their ability, and the utmost of their strength.

At the close of Dr. Wiley's address, he delivered to each of the students, in the name of the faculty and Trustees of the collge, a diploma investing them with the degree of Doctor of Medicine.

The following is a list of the graduates:

Geo. C. Bingaman, Louisville, Ill.
Marion E. Bland, Scipio, Ind.
Jas. M. Boyles, Louisville, Ill.
T. A. Coulter, Cincinnati, O.
Edwin Cross, Racine, O.
T. J. Denny, Owenton, Ky.
S. P. Drayer, Farmersville, O.
B. F. Foust, Wynant, O.
J. E. Hawkins, New Orleans, La.
J. E. Herriott, Jerome, O.
R. B. Jackson, Centerburg, O.
J. Pillmore, Rome, New York.
Jas. Scroggs, Ohioville, Pa.
Festus A. Snear Bryan, O.
W. H. Smith, Cincinnati, O.
J. A. Stinson, Jacksonport, Ark.
B. Tauber, Charleston, W. Va.
W. J. Watkins, Strangers' Home, Arkansas.

Prof. R. C. S. Reed, M. D., then delivered the valedictory address, and the audience was dismissed with the benediction.

The address of Prof. Reed will be published in the next number of the News.

Stopped his Journal.—Prof. Seeley takes it hardly that we printed, with comments, the exposure of the *Lancet and Observer* of his attempt to perpetrate a little fraud upon the profession and community, as to the real number of students in attendance upon the lectures of the Ohio Medical College, and, in consequence, has discontinued his subscription to the News. A claim against him for six months' subscription will be sold very cheap by applying at this office.

Lead Pipes.—The Board of Health of Sacramento, Cal., have reported adversely to the use of composite water pipe for the distribution of water for consumption. In a report, published in the *Western Lancet*, they say: "No less than seventeen cases of illness, presenting all the most unequivocal signs and symptoms of lead-poisoning, have come to our knowledge within the last month in this city. Most of these cases have partaken of the characteristics of slow chronic poisoning, clearly diagnosticated in lead from ordinary colic by a blue line on the dental edge of the gums, whilst some of them have been suffering terribly for several months, previous to our becoming cognizant of the fact, with intense muscular pains and loss of power, more or less approximating paralysis—all of them occupying residences supplied with water from pipes made of a patent composite metal, advertised and known as a 'sanitary water pipe!' It is here proper to remark, that the earlier symptoms of this affection are so obscure in their origin, and simulate so closely other diseases of the stomach and bowels, that physicians are frequently in doubt as to the true nature of suffering until sufficient time has elapsed to obtain positive signs of metallic poisoning—lead, which is the most easily dissolved metal in water, and at the same time most poisonous in minute quantities, being a cumulative poison."

An analysis of the water drawn from these pipes exhibited a quarter of grain of lead to the gallon of water. Upon this fact Dr. T. M. Logan thus descants: "It will be seen from this searching investigation that a remarkable quantity of lead was found in the water taken from the composite pipe—a quantity amply sufficient to produce the most pernicious effects of lead-poisoning, inasmuch as the one-hundreth of a grain of lead to the gallon has been known to produce palsy in persons who habitually drank it. No trace whatever of lead impregnation was discovered in the water drawn from the old pipe, which had been eight years in use in the laboratory. . . . Pushing the investigation farther, I find, on examination of the two different pipes themselves, from which the water that was examined had been obtained, *first*—That in the old lead pipe from which the water that contained no traces of lead was procured, there was found a closely adherent and very thin film—the sulphate of lead--deposited uniformly upon the inner surface of the pipe. This observation is not a new one, but has often been made before, respecting other river water, the minute quantities of salines almost invariably present, protecting the lead from further chemical action; whereas, if the water be perfectly pure, it soon becomes impregnated with lead. *Second*—That in the new composite pipe there was seen no such film of the sulphate of lead as found in the old pipe, but simply a loose deposit of river mud, on removing which, streaks of a blackened and slightly carroded surface were made apparent. In this latter fact is to be found the solution of the lead contamination and the deplorable effects that resulted therefrom. By water contact, the galvanic action created by the dissimilar metals entering into the formation of the composite pipe, promotes corrosive action, and hence the water becomes poisonous."

For probably more than twenty-five years the profession of Cincinnati have, at various times, discussed the subject as to whether or not the water of the Ohio river is rendered poisonous by its passage through the lead pipes used for its distribution throughout the city. Some have urged the affirmative of the question: and have been disposed to ascribe many of the obscure cases of sickness to that fact. Others, and these have composed the large majority, have taken the negative side, declaring that the salines of the river water precipitated all lead salts that might become dissolved in it, which insoluble mass formed a coating over the inside of the pipe and prevented further disintegration of its surface. Dr. T. M. Logan's investigations confirm these latter views.

FALL AND WINTER LECTURES—The *Cincinnati College of Medicine and Surgery* will commence its fall and winter term of lectures October first, and continue them until the latter part of February. The new building will be ready for occupancy before that time. About two weeks before the regular course begins a preliminary course will be held, during which lectures will be delivered in special departments. The Annual Announcement will soon be ready, which can be had of any of the members of the faculty on application.

Cincinnati, June 28, 1872.

EDITOR OF THE MEDICAL NEWS.—The Treasurer of the Ohio State Medical Society has furnished me with properly signed receipts, and I am, by him, authorized to receive the dues ($2.00) of members residing in Cincinnati and vicinity. Prompt payment is earnestly requested as the transactions are in the hands of the printer, and are to be completed and paid for by August first. Respectfully,

J. W. HADLOCK.

THE
CINCINNATI MEDICAL NEWS.

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VALEDICTORY ADDRESS.

Delivered before the Graduating Class. June 25th, 1872,
by Prof. R. C. S. Reed, M. D.

Gentlemen of the Graduating Class:

My colleagues have imposed on me the agreeable duty of addressing you on this occasion, agreeable because it affords me another opportunity to appear before a class of medical gentlemen with whom I have many reasons for being well pleased; and whose uniform kindness, correct deportment, and close application to study have not only challenged the admiration of the faculty, but won their highest esteem.

From a professional standpoint, the exercises of this evening are more important to you than the exercises of any other evening since you became students of medicine. During all the weary days of the past, since you became medical students, you have been dependent on others for that which was necessary for your professional development. Oftentimes their words were your words; you memorized their language, and you gave utterance to their ideas. But, at last, this evening, it is publicly proclaimed that you have reached that degree of professional development which permits you to be graduated in medicine,—which permits you to lay aside those restraints which have, until now, kept you in subordinate places, and allows you to assume the responsibilities and share the privileges conferred by the law on every member of the healing art. These, allow me to assure you, gentlemen, are no small privileges, no trifling responsibilities.

Hereafter you will have the privilege of maturing your own thoughts, declaring your own convictions, and maintaining your own principles of practice, not only in the consultation room, but before the profession at large. The privilege will also be yours of setting up the practice of medicine and surgery, and invoke the law for your protection. You can now commence a career of usefulness, and enter upon the race for position and glory.

The responsibilities you have assumed grow out of your duties to the profession, and your obligations to society.

Your duties to the profession are plain, and require from me no extended remarks. They mainly consist of a faithful acceptance of, and obedience to, the laws which have been made for the common good,—laws which determine the duties and obligations of the individual to other members of the profession who may be competitors for public patronage.

In society, there are persons who accept and obey the law of the land only so far as may be necessary to escape the penalty to be inflicted on those who violate it. They study how far they may avoid its provisions without subjecting themselves to punishment. They violate its spirit, and by so doing are continually trespassing on the rights of others. Such persons are never held in high esteem by their neighbors, nor are they regarded as good citizens. So in our profession those physicians who give an unwilling assent to the code—who violate its spirit while rendering nominal obedience to its provisions—do not, and, in the very nature of things, so long as they pursue this course, cannot occupy a high place in the estimation of their professional brethren. It is very desirable at all times that every physician should have the good will of the profession, and especially is it desirable, nay, *important*, during the early part of your professional career, that you should share the confidence of those who have grown grey in the practice of our noble science. You can then command their assistance in determining the more grave and obscure pathological conditions, and they will cheerfully divide the responsibility with you in those cases which are necessarily fatal. I submit, therefore, that, aside from right and justice, you have much to gain by accepting the code in good faith—accepting it in spirit and in letter.

Your obligations to society are many and important. You are now graduates in medicine, the sworn friends of suffering humanity everywhere, and as such you must be students for life.

Yours must not be a life of ease and pleasure, but one of patient toil, care, and anxiety. This will be apparent to you when you remember that the physician is the recipient of the confidence, and the guardian of the dearest interests of society as certainly as it is true that all that a man hath will he give for his life.—He who invites a physician to prescribe for him tacitly says to him "my life is in your hands; do with it as you may think best."

Gentlemen, flushed as you are with bright anticipations of an early return to family and friends, I am sure you are in no condition to listen to remarks which require a close application of the mind. I shall not, therefore, on the present occasion, impose on you the necessity of listening to the discussion of any scientific subject, but will invite your attention to a few of the many suggestions that might be made which will be aids to you in your career as practitioners of medicine. With an energy deserving of all praise, you have advanced to the starting point of what, I trust, will be a most successful and brilliant professional life. Much, however, will depend upon the start you now make, and the way you pursue your course.

First let me say to you that your profession is worthy of all your powers. You may attempt to master law, divinity, and medicine,—you may aspire to be politician or to enter the field of trade as merchant,—but should you do so you will not only not become eminent in any thing, but you will be most likely a nothing everywhere. Yours is a warfare on disease, the common enemy of the race, which is at all times on the alert to storm the fortress and capture the citadel of life. In the community in which you may locate, one will sicken here and another will be stricken there, and unless you are familiar with the mode of approach, and how to introduce a counter force sufficient to compel a retreat, victory will not so often perch on your banner—indeed you will have more failures to lament than victories to rejoice at. To this end, I would advise you to make, as soon as possible, a medical survey, not only of the family but the individuals in the family. Note carefully the peculiarities, such as temperament, faulty development, idiosyncracies, hereditary influence, mental peculiarities, etc. In this way you can gain most valuable knowledge—knowledge that will in many cases enable you to determine, in advance, the mode of attack, and allow you time to fortify against its approach. This cannot be learned from books and the lecture room alone. It involves, in addition to a thorough knowledge of anatomy, physiology, pathology, and therapeutics, the application of a fine discriminating judgment added to the powers of close observation. Let me say to you, therefore, that your profession claims and should receive your undivided attention.

Within the bounds of your professional influence, you may reasonably expect that your suggestions will receive much attention, and that your advice will be adhered to with very great care by such as are apprehensive of danger in the future from any hereditary taint they may possess. Allow me here to remind you that you should study well the character and tendency of your prescriptions before you advise with those suffering from chronic disease, or are fearful of becoming the victims of this hereditary taint. Be careful how you prescribe, and, above all, do not permit your prescriptions to foster the popular vices of the day, by the use of remedies, to ward off the imaginary approach of some form of disease. Indeed, I might here refer to the fact that our profession is subjected to very grave criticisms for the abuse of narcotic and stimulating agents. The opinion prevails in society, and it is inferentially drawn from the teaching of the medical profession, that alcohol, under nearly all the conditions of the system, is supporting in its effects. One individual suffers from debility; another from sluggish digestion. One physician would advise the first to drink beer, ale, or porter, and the latter to take wine, whisky, or brandy, and possibly he might advise some one of the so-called cordials in which there is dissolved, in diluted alcohol, about as much medicine as you would find in Hahneman's fourth dilution; while another physician would reverse these prescriptions in his practice. A third individual, whose parents have died of tubercular consumption, is afflicted with, perhaps, a slight pulmonary catarrh. The cough excites his suspicion, and without delay he applies to his physician, who advises him to put himself at once on raw beef and whisky. This, in a majority of instances, is a most pernicious practice, and that physician who has adopted it is most fortunate if he fails to meet, on the streets or elsewhere, those who have been dragged down from respectable positions in society by this delusive practice. And even if it were known that alcohol would certainly destroy the inherited tubercular predisposition, the practice should be resorted to with many misgivings, since it can be demonstrated that so many have been ruined by it; for it would be far better to die sooner of consumption than to live longer and die a drunkard. And this habit is not only fostered by medical advice, but it is enforced by the example of medical men. Look over this city, or any city, and note the great number of physicians who are being destroyed by this pernicious idea of alcoholic support; and the blighting effects of this fatal idea are further seen at our state and national medical ssociations. Too often these social and scientific reunions, with many, are made the occasions for bacchanalian revels. But a few years since, when the American Medical Association met in this city, the shocking spectacle was seen of physicians, who had traveled hundreds of miles, preferring to lay about noted wine cellars rather than mingle with society containing the beauty and polish of Cincinnati. And the programme for the exercises of this same meeting invited the ladies to be present at all places except the entertainment by the profession of Cincinnati. This meant that the entertainment was to be a revel too shocking for the sight of ladies; hence they were not only not invited, but informed in advance that their presence would not be permitted.

Think of the number within the bounds of your acquaintance who have been cut down, some of them in the midst of a life of usefulness, by this moral-debasing and mind-destroying habit, who now occupy the drunkard's grave. True, the mantle of charity has been thrown over them by their professional brethren by declaring the cause of death to be softening of the brain, nervous disease, disease of the stomach, liver, or some other organ of the body. But this delusion, this falsehood—for it is worthy of no other name—may cheat the world, but it cannot deceive the family or mislead the more intimate friends. When the heart-broken widow and the sorrow-stricken children think of the once kind father and affectionate husband, they also think of the cause of death and dare not wish him back.

Be not anxious, especially during the early part of your professional course, to accumulate wealth. Love of money disturbs that close application of the mind which is so essential to the attainment of professional eminence. Science in our profession, as elsewhere, is a jealous mistress, requiring of her votaries the whole head and the whole heart before she reveals her secrets or bestows her coveted blessings.

I may here be permitted to say that the art of relieving and curing the sick is peculiarly exposed to the greed of those whose god is mammon—of those the current of whose feelings never rises above that which may be necessary to subserve their selfish purposes. With little mental culture and less professional attainments, they assume the responsibilities of the physician and advertise to the world the pretended discoveries they have wrung from the unwilling hand of science. Through the gazettes of the day they send to the afflicted of our race the account of these discoveries, their great value in relieving the sick, and cases illustrating the triumphs of their skill in curing the most formidable morbid affections that attack the human frame. These pretended discoveries are, for the most part, but the exploded ideas of other men and other times, long since sent adrift and deposited in the eddies outside of the great stream of medical science, where they are found and again sent forth with unscrupulous presumption, if not unblushing impudence, as the great panaceas of life. These ignorant pretenders, be it said to the credit of our profession, have never been recognized as a part of the healing art, but always esteemed as deserving the same treatment which the law meets out to those who, by false representations, get control of the property of others.

But, gentlemen—and we say it with deep humiliation—all the bad men are not outside of the regular medical profession; we have reason to believe that there are those lost to those higher and nobler feelings which bind man to his fellows, who have sought and obtained admission to our ranks for the base purpose of using society for selfish ends. Those who study the weak points of humanity, magnify the importance of medical treatment for slight ailments and urge its continuance in cases which should be left to nature alone. They make extra and unecessary visits for no other purpose than to draw money from the pockets of their confiding patrons. Others, more bold but less scrupulous, pitch their tents at once in the wilderness of sin, and there, surrounded by wickedness and depravity, in the name of our noble profession, they commence a career of crime. Lost to all the generous impulses of our nature, they hesitate not to destroy the unborn fœtus and put in jeopardy the life of the prospective mother. In the part they play in the drama of crime they heed not the cries and the blood of the helpless innocent slain ascending to heaven against them, and the green-sodded mound in the quiet resting place for the dead, beneath which sleep both mother and child, gives them no compunction of conscience. These belong to a class of persons who are but the merest excrescence of moral obligations—a class of persons who should be classed and dealt with as the law classes and deals with robbers and murderers. I would fain believe that there are none of these holding place within our ranks. And I mention the subject here that you may the more easily resist the temptation to use your profession for other than proper purposes. To be fore-warned sometimes is to be fore-armed. The temptations here indicated will be sure to assail you, and not only these, but others promising financial reward for professional dishonor. But permit me to say to you, gentlemen, as one feeling a lively interest in your future, do not let the power of glittering gold, increased by that persuasive eloquence produced by wringing hands, swimming eyes and words of promise, seduce you from the path of professional rectitude.

Gentlemen, yours is a noble profession, one that will always favorably compare with other professions, while its foundation is science and its end the good of mankind. While the trophies of the barrister, who liberates from the clutches of the law those charged with crime, are too often a scourge to society, yours consist of the sick man restored to health, friends, and happiness. While the lawyer, for a fee, sells his noble powers to trick others and the law, and to turn loose on society those guilty of crime, the physician, for a pittance, enters the sick room, binds up the aching brow, administers hope and comfort to those suffering from lacerated affections, and establishes sunshine and happiness in place of darkness and gloom. Doctors owe allegiance to no one; true, they have their hobbies over which it is as natural for them to quarrel as it is for the sparks to fly upward, but there is not in this city, or out of it, a physician who would not at any time meet his most formidable professional assailant to consult over the case of one stricken with disease. Lawyers must obey the court. They dare not denounce the unjust rulings of a corrupt judge for fear of the future. Their quarrels,—not so numerous, but more unrelenting,—resulting, like ours, from difference of opinion, are, like the fights between Irish Esquires, most bloody when the combatants are most widely separated. The medical profession has her bad men whom the physician denounces when their practice is a damage to society. The legal profession has her bad men, whom the lawyer praises when their prostituted genius liberates persons guilty of grave capital offenses, to prey on society again. The lawyer in court is under others whose will he is bound to obey; the physician in the sick room is the law-maker and the executive officer, and his directions are as promptly obeyed as could be the orders of the commanding general of some victorious army.

To show you that I am not extravagant, that there are times when a good physician is greater than a king, that there are times when he is above governors, presidents, kings and emperors, let me ask you to contemplate a domestic scene—a family whose hearts are wrung with a dreadful anxiety for one vibrating between life and death. What a ministering angel does the physician seem! How they watch his every look! With what breathless earnestness do they hang on his words—and those words, how they wing themselves to the souls of the hearers for sorrow or for joy. In a scene like this, is there any one to dispute the power of the physician?—and when the crisis comes and the stricken one starts for health, is there any one in this audience who would exchange this triumph and the gratitude of this family for the gold and the glory obtained by him whose inventive genius creates a theory with which he establishes a doubt in the minds of the jury, and thereby procures the acquittal of one notoriously guilty of crime?

But if the medical profession is noble because of her foundation and aims, she is glorious on account of her achievements. Witness the comparative exemption of society from the ravages of those fearful epidemics which, in times past, went forth like the plowshare of desolation, turning under a large per centage of the population of whole cities and countries, and spreading consternation and terror amongst the living everywhere—and find a cause for it in the advancement of sanitary science under the direction of our profession. Compare our people with one marked and scarred by a form of disease most loathsome and offensive, and remember that vaccination has preserved the beauty of our race. Contrast the calm and quiet in the surgeon's operating room of to-day, with the cries and shrieks in that of forty years ago; and think of the great value of anaesthesia. Look at the unfortunate insane who, less than a century ago, were confined by chains in cold, damp and illy-ventilated places, attended, as they were, by the convicts of crime who, in this way, paid the penalty of the law they had violated—and contrast their condition with the condition of those who are now under treatment in our magnificently large and complete insane asylums. He was a brave and bold man who inaugurated this change—who struck off the fetters from the infuriated lunatic, and taught the world that insanity is a curable disease by instituting in place of this most brutal treatment from the most brutal of men, one of humanity and kindness, one that restored the insane to reason, to society and to friends. The name of Pinel should be written in letters of gold on its front, and his statute should adorn every insane asylum throughout the civilized world. His name, and the names of Jenner, and Wells, and Harvey, and many more, for the great benefits derived from their labors, will be held in high esteem as long as medicine has a history. They have passed away, but will always be remembered as great benefactors of their race. They will shine as stars of the first magnitude in the medical constellation, than which no brighter has risen in the firmament of the scientific world.

Gentlemen, in view of the foundation, the aims and the triumphs of your profession, allow me to exhort you to be industrious, to acquire professional eminence. Within the present century, one improvement has followed another, and one discovery after another has been announced until the accessions to medical science have been largely increased; but the field has not yet been fully explored. Doubtless, hidden truths, rich as diamonds, have yet to be brought to the surface and to view. Microscopic anatomy and pathology are destined to reveal many things not now known; and possibly, with the aid of analytic chemistry, will yet establish the primary lesion in disease. Therapeutics must receive large accessions, not only by the application of new remedies for the cure of disease, but new uses for old ones. Hydrophobia, cancer, and consumption may yet become curable by the use of remedial agents; and mental pathology and mental therapeutics are yet in their infancy; indeed, you can scarcely turn in any direction but something challenges you to investigate.

Permit me to say to you that the field is ample, and the reward to the industrious is sure. Let your aim be high. Take "Excelsior" for your motto, and with a determination that knows no reserve, move forward, deviating neither to the right nor to the left. Sink the first impediment; hurl this one to the right, and that one to the left; and onward and upward, straight forward go, until you shall reach the goal of your ambition, and establish for yourselves a fame as imperishable as the history of man, and more enduring than the Pyramids of Egypt.

In conclusion, gentlemen, as one of the alumni of your alma mater, and in the name of the faculty of this college and the board of trustees, and in the name of the alumni of the school and these greeting friends, permit me to wish you well, and indulge the fond hope that during the journey of life you may always be found on that highway which begins on earth but ends in the paradise of God; that you may become noted for your industry, your learning, your virtue, your piety, and all of those qualities which will make you an ornament of the social circle as well as a blessing to your race; qualities which will compel society to love you while living, weep for you when dying, and shed tears of sorrow over your grave—aye, build monuments to your name, and hang your portraits in the temple of fame.

PATHOLOGY OF IDIOPATHIC FEVER.

By G. D. WHITAKER, M. D., of Carlyle, Kan.

There has probably been no one malady to which humanity is heir to which the eye of scientific investigation has been directed so frequently with such a diversity of results. The much lauded hypothesis of yesterday lies to-day shrouded in forgetfulness, with no memento of its former greatness save probably the indelible stigma of universal contempt. And in accordance with the everchanging opinions entertained concerning the pathological condition involved, we have had a continuous oscillating movement in the mode of treatment proper to be instituted. Humoralism, at one day the almost universally recognized hypothesis, to which not only fever but likewise all other morbid phenomena of nature were referred, has sank into nothingness. Solidism, which once swayed the empire of medical practice, has been likewise brought into disrepute. Eclecticism, chemicism, philogisticism, and many other theories, regarding either general or special pathology, have risen to the medical horizon, glittered, trembled, and suddenly disappeared. Some of them have doubtless favored the advancement of medical science, while others, if nothing more, have at least taught us to be skeptical, and learn to doubt. But, in considering the pathology of fever, the question naturally arises, where is the primary impression produced, upon the circulatory or upon the nervous system? This subject involves almost an infinite amount of investigation and reasoning, and the decision involves the success of the profession individually, and its reputation collectively. Is it not in accordance with clinical experience to recognize an essential difference between idiopathic and the so-called symptomatic fever, inasmuch as they depend upon different causes, and indicate a different mode of treatment? Upon the removal of the cause of a symptomatic fever (the inflammatory action), the fever is generally disposed to subside; and again the inflammatory action seems to regulate the intensity of the fever present. In short, it presents the characteristics of some dependent element, thereby differing so widely from true idiopathic fever which presents such satisfactory evidence of being *a disease in itself*. In order to determine the pathology of fever, we must reason back from the *effect* to the *cause*, and in so doing one of the first conditions of importance which presents itself is an abnormal condition of the functions of vegetative life—perverted nutrition, perverted secretion, etc. etc. These phenomena are under the control of the system of the Great Sympathetic. And immediately before the outset of a fever, and during the period of incubation, however short it may be, does not this system of nerves furnish ample evidence of the presence of some morbid agency within? The effect seems to be one produced by *actual contact*, after which follows the long train of symptoms common to a fever. That the circulation is affected in fever is abundantly evident, but can we consider it in any other relation than a step in pathological advancement? And, again, in considering the perverted condition of the secretions of the body, must we not recognize them as secondary to a diseased condition of the blood? since all the fluids of the body are derived from it, except the chyle and lymph, which enter into its formation.

The morbid phenomena observable in fever are of such a character as to forcibly direct the attention of the pathologist to the nervous system as the seat of the primary disturbance. Indeed, during the period of incubation, they can be satisfactorily referred to no other source. While they are not in every particular similar to the paralytic state, they bear unmistakable evidence of partaking of the same nature. When we are called to the bedside of a patient suffering from an attack of paralysis, and observe the nature of the symptoms present, is there a doubt to be entertained as to the seat of the malady—do we hesitate to locate the trouble in the nervous system—is there one spark of evidence present which would lead us to locate the trouble in the circulation or in the glandular apparatus, or any other place excepting where it really belongs? And in observing another condition, which is, to say the least, so nearly the analogue of the paralytic state in all essential respects, there seems to be no satisfactory solution of the problem but to refer it to a similar source. The question naturally presents itself, —is the cause of fever produced within the body, or externally to it? We all admit that fever is a zymotic disease,—having its origin external to the body—and, in order that we may be made aware of its nature, it is necessary that it should make an impression upon the body. In the same manner, we are made aware of the temperature of the atmosphere—whether it be high or low,—the impression *first* being made upon the nervous system, afterward propagating its effects to the circulation, the process of combustion, the secretions and excretions of the body. We have all verified the correctness of this latter statement, and are not its conditions very similar to those of the reception of an impression which prostrates the energies of the body in fever? And, again, the very existence of fever involves an increase of the animal temperature of the body, which, through the circulation, is dependent upon the nervous system, and inasmuch as the nervous system exerts a "regulating, or it may be moderating," influence over the process of combustion, it legitimately follows that it has first been disturbed, or the impression would not have been communicated to parts under its influence.

Lyons says, in regard to the primary morbid impression in fever: "Taking into account the various phenomena which attend the outset of a fever, characterized by weakness, prostration, and loss of energy, especially in the muscles and sensitive apparatus (and all, as you must bear in mind, so rapidly induced within a few hours in many cases), we may conclude, with Virchow, that the elevation of temperature, which is found to be among the earliest as well as the most constant of symptoms, is a paralytic phenomena. Though not identical with the paralytic state, it is, in all essential respects, analogous to it, and can *only* be produced by a loss of power in the nerves which constitute the natural regulators, or it may be moderators, of the development of animal heat."

In short, I think, when we earnestly and diligently seek an explanation of the phenomena of fever in neuro-pathology, we shall be on the right road to the satisfactory solution of many unsettled problems connected with the pathology of fever.

REPORT OF TWO CASES OF MONSTROSITY.

By Dr. E. Sinnet.

[Read before the Ohio State Medical Society.]

Mr. President and Gentlemen: — Since our last annual meeting, I have had in my obstetrical practice two cases of monstrosity; alike novel in their character, and very interesting and suggestive to the medical student, a brief report of which I have thought advisible to present at this meeting.

Mrs. R., No. 1, was confined in July, 1871, without any unnatural symptoms or peculiarities in her case either before or at the time of her confinement. Upon my examination, made during the early part of her labor, I was somewhat disconcerted at finding what appeared to be a double-headed child. Labor progressed naturally, and in due time the mother gave birth to a female child, which had attached to the occipital portion of her head a tumor, or enlargement, four inches in diameter either way, which was connected with the brain through the posterior fontanelle by a pedicle or neck one inch in diameter, thus forming a perfectly well-developed "chignon" of brain substance. It was evidently a child with a double brain, for the tumor had well-defined lobes and hemispheres, and the natural divisions into the cerebrum and cerebellum were very distinct.

The skin covering this enlargement was of a natural color and slightly covered with hair. There was no osseous formation underneath the integuments. The peculiarity and interesting point connected with the history of this case is the fact that during the early period of pregnancy the husband and wife had quite a spirited and quarrelsome discussion in reference to the propriety of the wife wearing a large "chignon."

Does this case prove that deformities may be produced upon the fœtus by mental impressions made upon the mother during early pregnancy? or, is it simply a deformity to be classified with spina bifida? I am inclined to the latter opinion; however, taken in connection with the divided opinions entertained upon this point, the case is suggestive.

Aug. 20th, 1871, I was called to see Mrs. R. No. 2, who was some eights months advanced in pregnancy with her fourth child, and found her not a little excited at the unexpected discharge of the liquor amnii, occasioned, as she supposed, at the sight of her mangled brother, who had, a few hours before, been severely kicked by a horse and brought home. This flow was not accompanied with pain, or in any way anticipated by the patient, and upon my arrival she stated that "she felt as well as before the waters broke, and that the motion of the fœtus was very distinct." Perhaps I may as well add here that she claimed to have felt motion every day up to the period of her confinement.

As she resided only a short distance from my office, I enjoined perfect rest and quiet, and left her with the understanding that early notice should be given me upon the appearance of any symptoms indicating the approach of labor. For six weeks next following this occurrence, she enjoyed as good general health as could be expected. But from the fact above stated, and the fact that she was much larger than usual under like circumstances, she was daily impressed with a fearful anxiety about the results of her case. Upon Oct. 3rd, I was summoned to attend her in actual labor. When the pains had become regular and somewhat severe, I made the usual examination, and found a head presentation; but as there was no perceptible advancement of the child, I allowed the case to progress for several hours. When I made my second examination, I was somewhat surprised to find that the child remained precisely in the same position that it was upon my first examination, namely—fully up in the pelvic cavity and high up in the uterus.

Notwithstanding the uterine contractions were severe and almost continuous, there was not the usual advancement expected in such cases. As the os uteri was fully dilated, I decided to administer the fluid extract of ergot, even during this period of strong uterine contractions. In this I failed of producing any noticeable change in the position of the fœtus, for I was particular upon the recurrence of each pain, during the administration of the ergot, to have my finger in contact with the child.

At this stage of the case, I introduced my hand fully up into the uterus, and grasping the feet, drew them down, with the expectation that a change would soon occur. Again was I disappointed, for the body remained fixed as ever. After quite a number of the same strong uterine contractions, accompanied with decided traction of the limbs, I was still disappointed in not producing more advancement of the child, and came to the conclusion that some deformity existed so as to obstruct the natural passage of the child into the pelvis. I took the limbs in my left hand, and passed my right hand high up into the uterus so that my fingers rested upon the shoulders of the child; and then, by continuous and firm pressure, attempted to draw it down, but without effect. This I continued to do, only changing my fingers from the shoulders to the mouth of the child, until I was satisfied that the deformity could not pass the superior straight without some reduction. I then, with great difficulty, passed my hand up to the fundus of the uterus, and found a large mass which I at once decided to be a hydrocephalic head, and by continued manipulations with my fingers, I succeeded in puncturing the integuments so that a portion of the fluids escaped. Immediately following this, the child was brought down with comparatively little effort—a success which afforded myself the greatest relief.

The child was perfect in all respects excepting the head. This measured twelve inches from the os frontis to the occiput, and five inches from the ear to the vertex as it lay upon the table; and it must have contained three or four pints of fluid.

There is no question in my mind but that this hydrocephalic head was entirely above the pelvis proper, and that its bulk was so great as to prevent its passage into the pelvic cavity without some reduction. I am impressed with the idea that this is a very unusual case, for in the authors which I have consulted, I have failed to notice the report of any case where the head was so enlarged as to be confined above the brim of the pelvis. I, of course, do not claim that such cases have not been reported, but only that they have not come under my notice.

Now, what are the questions to be decided in this case? Did the shock occasioned by the sight of her injured brother alone produce the premature discharge of the liquor amnii, or had the child's head become so large as to have produced rupture of the membranes? or was the head of a natural size at the time of the rupture, and was that the period when hydrocephalus commenced?

These are questions which I have not fully settled in my own mind, and hope to hear from those who have been so unfortunate as to have had such cases under their care.

LOSTORFER'S CORPUSCLES.

Dr. Edward B. Bronson, of New York, who has been studying in Vienna, communicates to the *Medical Press* particulars of the alleged discovery of certain corpuscles peculiar to syphilitic blood, by Dr. Lostorfer.

We avail ourselves of his able contribution to lay before our readers a full description of the corpuscles of Lostorfer, their microscopical appearances, and the method pursued in Vienna in their observation.

A slight puncture is made in the skin with a moderately large needle, and with the minute drop of blood squeezed out the glass cover is lightly touched and then dropped upon the slide. The specimen, then, should have the following characters: The quantity of blood is small, not occupying but a portion of the area of the cover, reaching to the latter's edge to as slight an extent as possible. After standing a few seconds, the blood should be bounded by a narrow dried border. This prevents a too free admission of moisture from the glass chamber in which the specimen is afterwards placed. The disposal of the blood corpuscles most favorable to the observation of the corpuscles of Lostorfer is where they have run together in the form of a net-work, enclosing clear inter-spaces, and these will be generally found toward the edges, where search for the corpuscles is most constantly rewarded.

The specimen must be kept in a moist atmosphere, and at a moderately warm temperature. The apparatus employed by Dr. Lostorfer is a botanist's exsiccator (a cylindrical glass jar, with cover fitting by ground-glass edges), containing a little rack to hold a dozen slides, and a few drops of water at the bottom. The temperature in which Lostorfer made most of his observations varied from 10 deg. to 18 deg. R. When the temperature sunk below a certain not definitely ascertained point, no development of the corpuscles took place. A warm temperature favors their development. Above 35 deg. Celsus, the corpuscles entirely disappeared.

In the microscopic examination, the magnifying power used is the objective No. 10 *a immersion* of Hartnach, with occulaire No. 3. At the expiration of from fourteen to twenty-four hours, minute granules appear in the above-mentioned inter-spaces, some stationary, others rapidly in motion. Later, in the same situations, larger granules will be observed, breaking the light strongly as the lens is elevated, and dark as it is depressed, which go on increasing in size till a distinct circular outline can be made out, and to a practised eye the appearance soon becomes characteristic. At the expiration usually of some forty-eight hours, corpuscles have developed, which can with certainty be pronounced to be the corpuscles of Lostorfer. To a sufficiently assiduous observer, this development from granules which seem to start from a minuteness beyond the range of vision, appears an evident fact, and, if true, refutes at once those opinions regarding the origin of these corpuscles which refer it to degeneration of the blood corpuscles, or to access of fat globules from the skin at the moment of taking the blood. The period at which the syphilis corpuscles are distinctly visible varies considerably. Exceptionally, they have been seen as early as at the expiration of the first day, and again in one case they were only distinctly recognizable at the end of the fifth.

It is to be regretted that at present a description of the appearance of these corpuscles must be limited almost exclusively to their optical peculiarities. Chemical reagents have yet afforded but slight assistance. In size they vary very considerably. At the end of the second day they have usually an average diameter of from 0.002 to 0.05 mm., and from this their increase is proportionally, as a rule, much slower. In one preparation kept for eight days, I saw them attain the size of the red blood globules, while their ordinary size is from one-twelfth to one-sixth of that. Finally, they seemed to undergo a commencing degeneration, and their brilliancy faded. They remained usually, however, distinct till lost by drying of the preparation.

By good light, the appearance of the corpuscle is that of a delicate little spherule. Its appearance of delicacy is characteristic, and distinguishes it markedly from other corpuscles found in the blood resembling it in size. When viewed by lower adjustment of the lens the corpuscle appears of a uniform light grey, without variation in shading from centre towards the periphery. On depressing the lens still more, the body does not become darker, but at once disappears from view. By the higher adjustment of the lens, the light is broken more strongly than from the blood globules. Besides its intensity, the diffusion of the light uniformly over its whole area distinguishes it markedly from detached bits of blood globules, oil globules, etc. Its outline is *not sharply defined*, considerably less so than that of the red blood corpuscles. This peculiarity is well marked, and an important point in distinguishing it from numerous bodies liable to be confounded with it.

Another peculiarity of Lostorfer's corpuscles is the frequent occurrence of little processes sprouting out from their surface. As I have observed them, they have never amounted to more than a greater or less irregularity of the contour at some point. Dr. Lostorfer, however, asserts that he has seen them develop into a chain of two or three members, indeed, something very like a micelium. He also describes the formation of vacuoles within the corpuscles, which gradually increase till they occupy their entire area. It was in consequence of these appearances that he was inclined to regard them of a fungus nature. Sometimes instead of round bodies, irregular forms will be seen, as if two or more corpuscles had joined to make an irregular mass.

The peculiar characteristics, then, in the appearance of the corpuscles of Lostorfer are—(1) their apparent delicacy of structure; (2) the moderate definition of their contour; (3) their uniform greyish shade; (4) their refraction of light, stronger than that of the blood globules; and finally, (5) the little processes or sprouts upon their surface. Of course, in absence of good light, these appearances will be modified; the brightness will be less intense, and instead of the light greyish there will be a darker shade.

Chemical reagents have not been found very available to diagnostic purposes. Under the action of acetic acid, distilled water, and some other agents, the syphilis corpuscles shrink up, while detached bits of protoplasm swell and are dissolved under their action. The test is attended with some difficulty, owing to the danger of the corpuscle under observation being swept away by the sudden current. But a little care will obviate this. The action of the acetic acid is more marked upon the younger corpuscles; the older are less or not at all affected by it. Iodine is said to shrivel them without producing a blue color, and osmic acid does not turn them black, as it ought to do were they spores.

Corpuscles which might be mistaken for those of Lostorfer arise in large part from disintegration of the red and white blood corpuscles. The red globules often detach little bodies that assume about the size and shape of the syphilis corpuscles and have a tolerably strong refraction of light. Their color, sharp definition, and their less intense and less uniform brightness distinguish them from Losterfer's corpuscles. A number of observers have referred the origin of the corpuscles of Lostorfer to the disintegration of the white blood corpuscles. Corpuscles do result from this disintegration, bearing often a certain degree of resemblance to the corpuscles of Lostorfer. But their mode of development is too different to regard them as identical, and a familiarity with their appearances will discover many points of dissimilarity. The white corpuscles commence early to disintegrate. First the nuclei and granules become sharply defined, then the contour of the corpuscle appears at some point ruptured, and numerous bodies will be found issuing from it or lying in its immediate vicinity, which in size, shape, and perhaps some other respects resemble the syphilis corpuscles. They consist for the most part of nuclei, spheres of protoplasm, and vacuoles. They are often of a reddish tinge, or pale bodies lacking the brilliancy of the syphilis corpuscles, and have usually sharply defined contours. Finally, the acetic acid is often here available as a test, as they do not shrink under its action.

Professor Wedl, in his report on the corpuscles of Lostorfer, before the Gesellschaft der Aerzte, declared these corpuscles to be fat globules, or possibly bits of protoplasm. Among the numerous observers who have subsequently expressed opinions on the nature of these corpuscles of Lostorfer, I think no one has supported the opinion of Wedl. Professor Stricker has expressed his total inability to pronounce upon the nature of these corpuscles, and were they fat globules one would suppose he would have discovered it. As Professer Stricker admitted, Professer Wedl unquestionbly found fat globules in the blood which he examined, but that he observed the corpuscles of Lostorfer does not appear at all clear.

As to constancy of appearance of Lostorfer's corpuscles in syphilitic blood, Dr. Lostorfer has told me that he has found them in the blood of every syphilitic patient that he has examined, though not in every specimen. He has been obliged at times to take blood for the third time from the individual before succeeding in finding them. As to their relation to the stage or severity of the disease, nothing has been ascertained.

Since writing the above, the report of Prof. Stricker's recent investigations in reference to those corpuscles has been received. The sincere and earnest manner with which Prof. Stricker set himself scientifically to investigate the matter is worthy of all admiration. His conclusion, however, from the fact of their presence in six cases of persons in debilitated and cachetic conditions where no syphilis was apparent, that the corpuscles were not peculiar to syphilis, but rather to the debilitated and cachetic condition, did not prevent him from accrediting to Lostorfer a veritable discovery, and the real importance of this can only be estimated after such further investigations as add to our information a knowledge of the nature of these corpuscles and of their source.

HYDROPHOBIA.

A Lecture delivered at the Medical College of the Pacific.
By Prof. JOHN C. DALTON, M. D., of New York.

The study of hydrophobia is invested with unusual interest from several circumstances. First, from its communicability; second, from its extraordinary, probably universal fatality, there being no authentic case of recovery; and lastly, from the terrible character of its symptoms.

It is an extremely rare disease. Many practitioners have never seen a case; and yet it does recur with tolerable regularity. During the six years from 1863 to 1867, inclusive, a hundred and seven cases occurred in France. Taking the average population of that country as thirty-six millions, this would give one case every two years for each million of inhabitants. But the disease prevails to a greater extent in cities, for obvious reasons. The denser population of the city brings the rabid animal in almost certain contact with many persons, while in the country he may die before meeting any one to bite. Again the statistics of cities are more accurate. In the Department of the Seine, including Paris, the population averaging one million, there was, for the twenty years from 1842 to 1862, an average of two and one-third cases each year. In New York, for the six years from 1866 to 1871, there were twenty-two cases, an average of two and two-thirds each year. Taking all these statistics together, we judge that we have, generally speaking, three cases of hydrophobia a year to every million of people.

Another point of great interest is the frequency with which hydrophobia follows the bite of the animal. In the neighborhood of Paris is the Veterinary School of Alfort, where this subject has been fully investigated. It was found that of dogs bitten by rabid dogs, but one in three becomes rabid. In the human race the proportion is much less. John Hunter estimated it at only one in twenty-one. This has been considered far too low; but it has received singular confirmation in the investigations mode at the veterinary school of Alfort. In the Department of the Seine, a hundred cases of hydrophobia in dogs occur annually. It was found that of twenty-five of these, ten only bit persons, and these ten bit fifteen persons. At this same rate the five hundred dogs would have bitten sixty persons. But we have already seen that only between two and three cases of hydrophobia in man occur annually, hence we arrive at almost the same result as Hunter.

The less susceptibility of man to hydrophobia is owing to a variety of causes. Man is undoubtedly less susceptible to the poison. Besides, there are a great many physical causes operating. It is not the bite, but the saliva that poisons. If a man be bitten, it is through the clothing, or the boot, and the saliva is wiped off, or should the saliva touch the wound it is often removed by the action of the person, by squeezing or washing, or rubbing the wound, or if there be much bleeding, the blood may wash away the poison before it has time to be absorbed. But if absorption has taken place, it is absolutely certain to produce death.

Now in regard to the signs which follow a bite. There are no immediate signs. The mad dog does not display any ferocity. It may be a chance bite, a snapping of the jaws without the intention of biting, that brings the poison in contact with the raw surface. Indeed, the dog may not bite at all, but the saliva touch a wound or abrasion or sore already existing. The bite is generally not large, and heals well. Then comes the period of incubation, such as occurs in small-pox, measles and scarlatina. The person is inoculated, but the poison is not yet diffused over the system. This period of incubation varies. It is rarely less than a month; it is often delayed to two or three, and may extend to the end of the sixth month; and there have been cases in which the disease has not exhibited itself until a year has elapsed. There are stories of longer periods, even to eight years; but these are incredible, particularly as during that time there are so many chances that another bite may have been received. There are then no symptoms for a month. Each succeeding week of exemption after the month has elapsed diminishes the liability. At three months the patient is probably safe; at six months almost certainly so; but what weeks of extreme anxiety must he experience before the danger is past!

If hydrophobia is about to occur, there is generally slight irritation about the wound; an itching, possibly swelling, with red lines extending therefrom; but this is not always the case. Next follows stiffness of the neck; then febrile action, with loss of appetite, succeeded by difficulty in moving the jaw and difficult deglutition; then occurs a most remarkable symptom—a vague and unaccountable anxiety, not of any special thing, and quite unexplainable. After from six to twelve hours this amounts to delirium. Finally, hallucinations occur, and the friends are obliged to restrain the patient by force. This necessity for restraint has given rise to the popular idea that hydrophobia induces a tendency to attack persons. It is, however, entirely erroneous. Another symptom has given rise to the popular impression that there is a great dread of water; hence, indeed, the name of the disease. But this is equally erroneous. There is great difficulty in swallowing, whether water or other things.

An attempt to do so brings on convulsive constriction of the glottis, accompanied by great pain and distress, which any one who has inhaled chlorine in the laboratory has experienced. In this respect hydrophobia is very similar to tetanus. In that disease, a breath of air, the moving of the bed clothing, or some such slight circumstance, will cause sudden reflex convulsions of opisthotonos. So with swallowing in hydrophobia. After repeated trials, so painful. he gives up in despair: he throws the water from him and will not again attempt to swallow. When this condition is reached the patient has not long to live. He dies of extreme nervous depression and exhaustion, generally in forty-eight hours, though he may live three days.

What treatment can be instituted in these cases? Of course you will think of opium, of chloroform, and other narcotics. They are useless. There is only one thing to be done, and that at the very first: Cauterize. Some have recommended to cut out the wound first and then cauterize. I do not see the use of this. We cannot tell the depth of the wound. We cannot be sure of preventing the knife from cutting into the bitten portion, in which event every movement of it would carry the poison farther. Use the caustic freely. Lunar caustic is the best, being the more readily obtainable than any other; and its stick form renders it easy of application. Apply it thoroughly until every portion of the wound has lost its sensibility. Generally speaking, if this is done early enough, it is efficacious.

But there is something of a great deal more importance than this. Barbarous as it may appear, it is not so important to save life as it is to prevent a dog with hydrophobia from being at large, with the probability of his biting.

Although the proportion of those who have hydrophobia to those bitten is so small, I do not know that the majority of those bitten would not prefer speedy death to the terrible anxiety of uncertainty. But how shall biting be prevented? Only know that the dog is mad. Fatal bites result because the disease is not recognized. To recognize hydrophobia in the dog is vastly more important than to distinguish it in man, and there are signs by which it may be distinguished before the tendency to bite is exhibited.

Now of the signs of hydrophobia in the dog. I presume that ninety-nine of every hundred, perhaps nine hundred and ninety-nine of every thousand, think that dogs get mad only in hot weather—never in cold—and that they have a horror of water. This is not true. The disease is no more prevalent in hot than in cold weather. Dogs have no horror of water, but being feverish, drink frequently. The symptoms in the dog have been fully studied at Alfort. He first gives evidence of being sick, loses his appetite, refuses food, skulks out of sight, avoids his companions and playfellows, and hides in dark corners. Now, as hydrophobia is so dangerous a disease, a dog showing signs of sickness should be watched. Whatever the nature of the disease may be, however, a dog will always act in this way. These symptoms are not pathognomonic. But there is another symptom which, if it occur in connection with these, is very suggestive. It is a peculiar agitation. The dog with hydrophobia does not lie in one corner for ten minutes together. He is not satisfied to remain in one locality. Should his master call him he goes to him, but quickly returns to a corner. If he has a kennel he runs into it. He piles the straw up in the middle of the kennel and lies upon it. In a few moments more he jumps up and pushes all the straw out on the ground. These are extremely suspicious circumstances, and call for careful confinement of the dog.

Next, the dog has hallucinations. All at once in changing his position he stops, pricks up his ears, and seems to hear something. This is but momentary. Again, he appears to hear some other dog on the opposite side of a wall or a door, and scratches to get to him. He snaps at imaginary flies. Now is surely the time to place him in confinement. Up to this period he has shown no disposition to bite. It must be borne in mind that when sick, the natural disposition of the dog remains. If he be naturally excitable and aggressive, he will be more apt to bite. He will be more apt to bite a stranger or a beggar than one of the family, or his master. Indeed he will not bite his master unless driven too far. He will even come, though reluctantly, at his master's call, and will perhaps receive a whip or two before his unusual excitability overcomes his habitual control and induces him to bite. All this time the hydrophobiac dog will drink. He will take more water than usual; his apparent repugnance never being so strong as in the human subject.

The next symptom is a depraved and unnatural appetite, exhibited by biting furniture, gnawing curtains or the carpet, swallowing bits of wood, coal, brick, even his own dung. This adds much to the belief that he has hydrophobia. All know that some pet dogs have a habit of gnawing books, but hydrophobiac dogs, having no such habits, do the same, and, besides, swallow what they gnaw off.

We have then agitation and extreme restlessness, hallucinations, and depraved appetite, as symptoms of the approach of the dangerous stage of hydrophobia. The following incident will illustrate the importance of distinguishing the disease at this early stage, and the value of these symptoms: Two ladies, with the little daughter of one of them, lived together. They had a little pet dog, which became ill, and hiring a carriage they drove out to Alfort to consult the veterinary surgeon. It was after visiting hours, and not being able to see him, they returned the next day. The surgeon was now able to decide at once, from their account, that the dog had hydrophobia. He learned that the dog had developed a disposition to tear the curtains, and had not slept during the whole night, but was heard pattering over the floor. Unfortunately, in the interval between the two visits, he had bitten the little girl.

When a member of a family is supposed to have been bitten by a rabid dog, it is the habit to kill the dog at once. This is all wrong. The only means of deciding whether the supposition is correct is thus destroyed. It is well known that the house-dog is prone to epilepsy. If in the paroxysm he may accidentally have bitten or appeared to snap at some one, let him be confined and watched for a few days.

The fourth symptom is a peculiar bark. I have never heard it. It does not always occur, but when it does exist, is considered a very valuable symptom. It is very difficult to describe, but is spoken of as a loud, quick bark, followed by a series of diminishing howls.

The fifth symptom is insalivation, in regard to which a misconception has arisen. There is no great abundance of saliva, but it is peculiar in quality. It is very viscid, and hangs down in strings from the mouth, giving to the human and the dog an appearance of peculiar and unaccountable distress. The dog appears to be annoyed beyond expression, and makes every effort to remove the viscid strings of saliva with his paws. These efforts have given rise to the idea that a bone or piece of wood is lodged in the teeth or throat, and in one instance a veterinary surgeon, in making an examination, was bitten.

Now the aggressive disposition begins to show itself. The insane desire to bite is first excited by animals of its own species. Next, the dog attacks man, but even now discriminates in favor of its master and friends. A stranger or some one coming to the door is attacked. Now that the disease is fully established, the dog disappears from home, probably with the idea of seeking a deserted place and withdrawing from observation. But new and greater sources of irritation meet him at every step. The noise of carts and horses and of people increases his excitability. If he should escape death and succeed in reaching the fields, he reels along from side to side, snapping at anything and nothing, until finally paralysis occurs, and he lies on the side of the road to die in a few hours, if not sooner killed by his pursuers. Sometimes, finding no rest or escape, he goes back to his master's house. But he has undergone an extraordinary change in appearance. He is draggled, and dusty, and exhausted. Ignorant of his true condition, some of the household pity him, and no sooner touch him than they receive the fatal bite.—*Pacific Medical and Surgical Journal.*

DR. PETTIGREW ON THE CIRCULATION.

Dr. Pettigrew's seventh lecture on "The Physiology of the Circulation in Plants, in the Lower Animals, and in Man" was devoted to the fœtal circulation. The lecturer divided the fœtal circulation into two kinds—1st, the circulation within the body of the fœtus; 2nd, the circulation between the maternal and fœtal porions of the placenta. The fœtal circulation, he remarked, was carried on chiefly by visible forces—viz. the heart and blood-vessels; the placental circulation mainly by invisible forces—viz. absorption, evaporation, osmosis, capillary attraction, chemical affinity, nutrition, etc. He showed that the fœtal circulation was a closed circulation; all the vessels of the fœtus (those of the fœtal portion of the placenta included) being quite distinct from those of the parent; the fœtus in the early stages of pregnancy being nourished by the imbibition of nutritious juices, not necessarily those of blood; and, in the later stages, by the more fluid portions of the blood of the mother, which, in the placenta, passes through the walls of the maternal vessels into those of the fœtus by a process of osmosis. The parent gives to the fœtus by endosmose and takes from it by exosmose, similar remarks holding true of the fœtus. The relation between the mother and fœtus is, therefore, of the most intimate description. The lecturer gave some original views as to the structure of the placenta. He maintained that the constituents of the placenta are essentially those of the external and internal skin. He explained his meaning by stating that the most active parts of plants are the roots and leaves, these drawing nourishment from the ground and air; that animals consist of two parts—an external skin or outer surface, corresponding to the leaves of plants: and an internal skin or mucous lining, which corresponds to the roots of plants. An animal, in fact, is to be regarded as an organism, with an involuted portion corresponding to its alimentary canal. The external and internal skin are consequently continuous without and within the body, and have a community of structure. The lecturer dwelt upon this community of structure, and showed that the outer and inner skin were composed of epithelium of a basement membrane, of capillary vessels and innumerable ductless glands—the elements, in fact, of which the placenta is composed. He demonstrated that the external and internal skin presented little elevations (papillæ), that each eminence, whether of external skin or mucous lining, was covered by a layer of epithelium, had a basement membrane, a capillary tuft of bloodvessels (arteries and veins), and numerous glands. He contrasted the villous eminences of the external skin with those found on the internal skin—e. g., the villosities of the stomach, colon, uterus, etc. They were found to agree in a remakable manner. He observed that if two such surfaces were placed in apposition, a structure closely resembling, if not identical with, the placenta would be at once produced. This view, he remarked, was favored by development and comparative anatomy. The maternal and fœtal vessels in the cotyledon of the ox, he explained, formed pyramidal-shaped masses, which readily separated. The separation is facilitated by a thin layer of cotyledonous milk, found between the individual vessels, this inaugurating and promoting osmosis between the vessels of the parent and its offspring. The same thing substantially happens in ourselves. The maternal and fœtal villous tufts or capillary vessels interdigitate in the placental area, as the fingers of one hand may be made to pass through those of the other. This brings the ultimate radicles of the vessels of the mother and fœtus into the most accurate apposition possible, the two sets of vessels abutting against each other throughout large spaces, and being only separated from each other by the extremely thin walls of the vessels, their appropriate coverings and a thin layer of utricular substance (the secretion of the utricular glands), which the lecturer believes is absolutely necessary to an effectual exchange of nutrient and effete materials between mother and fœtus. The lecturer dissents from the commonly received opinion that the bloodvessels of the mother expand and cover those of the fœtus with a sac-like investment. He further doubts the existence of venous sinuses in the uterus as receptables for blood, neither of these being found in extra-uterine fœtation. He pointed out that if the relation between the mother and fœtus was such as it is usually described, the injury done to the uterus by the forcible removal of the placenta would be such as to jeopardize the life of the parent by hemorrhage; whereas, according to his view, the separation would be as natural as the original union. The lecture, which was illustrated with quite a large number of diagrams and specimens, was listened to with marked attention throughout.

PURULENT PERICARDITIS.

A Case in which the Pericardium was filled with Pus.

By JAMES GRAY GLOVER, M. D.

The following case is one of considerable rarity, and perhaps worthy of being recorded.

On the 12th of April I was called to see a little girl, Grace W., aged 12, who had complained occasionally, but not severely, of pain in her left side for two or three months, had been ill for two or three weeks, and under the care of a homœopathic practitioner. I was told that her illness began with a slight shivering. There was no rigor throughout. She was pale and emaciated, and had a higher temperature than normal; on the second day of my attendance it was 101 degrees. The most noticeable complaint she made was that of excessive tenderness when touched anywhere, but especially about the chest. This rendered physical examination impossible. Her respiration was rather quick, and her nostrils were dilated more or less on breathing. She generally sat up in bed with her shoulders much rounded. I could not make out the indications of tubercular disease, which I suspected, either in the lungs or the abdomen. The first day or two of my attendance there was sickness, vomiting of almost everything taken, and a tendency to diarrhea. The upper part of the abdomen was swollen and tender, and hard as far as could be ascertained. She became gradually weaker. She was clear and intelligent, but was occasionally excited in a semi-hysterical sort of way, and on the occasion of my visit the day before her death, went for a few minutes into a very curious trance-like condition, on coming out of which she sang in an Ophelia-like fashion. This nervous element in the case was very noticeable throughout, but I confess to being more impressed with the tenderness, the high temperature, the short breathing, etc. Though I had to content myself with a somewhat vague diagnosis, I had no difficulty in giving a very serious prognosis, which was verified by death in seven days. It is remarkable that two days before her death she managed to walk, after a fashion, a few feet from the sofa to her bed.

The treatment consisted in attempts to introduce nourishment, and, in the way of medicine, the administration of a drop or two of tincture of opium every three or four hours, which soothed and had a beneficial effect on the vomiting and diarrhea.

At the post-mortem the above facts received the following pathological explanation:—*Thorax:* On percussing the chest and abdomen prior to opening them, extensive cardiac dulness, and dulness and hardness of the hepatic and epigastric regions, were marked. On opening the chest the pericardium was found very much distended, as if with a large quantity of fluid. This fluid turned out to be very thick greenish-yellow pus—what the old pathologists would have called laudable pus,—which welled up out of a little opening made, till occasionally the opening became plugged with lymph. I collected a tumblerful of it, and much more remained. There must have been at least two tumblerfuls altogether. Much purulent lymph then appeared adherent to the inner surface of the pericardium. The substance of the heart seemed pale and soft. The endocardium and the valves were unaffected. The lungs were congested and adherent to the side, but did not contain tubercle. There was a quantity of serum in the pleura, but not pus.—*Abdomen:* The liver was enlarged very much and universally congested. There was a good deal of straw-colored fluid in the abdomen; but no other morbid appearance was noted.

Remarks.—I never saw pus in the pericardium before, and from what I can gather from books and physicians and pathologists of authority, the case is one of rare occurrence. Clinically, it is curious to notice that such a quantity of pus can accumulate in the pericardium without more distress of the circulation, without more acute local symptoms, and without the coexistence of acute rheumatism.

Dr. Wilks kindly sends me the following comments on my written account of the case, which will be read with interest:—

"Your case is an interesting one; I have seen two or three of the kind, and in none was the pathology very clear—i. e., there was not the history, as one might have supposed, of rheumatic pericarditis, but the disease was insidious and undiagnosed. We have amongst our drawings in the museum an enormously distended pericardium of a case under the late Dr. Hughes. He thought the physical signs caused thereby indicated pleuritic effusion. The same thing occurred under Dr. Addison.

"In the Pathological Transactions for 1869 is a case of mine where a lad died with pericardial effusion. This was evidently the result of an acute affection, although the history extended over some months. His symptoms were due to impairment of the heart's action, and such as are met with in ordinary cardiac disease.

"I suppose the question is—whether such insidious and generally undiagnosed effusions are of a peculiar kind and have a pathology of their own, or whether they are simply the exceptional and accidental consequence of an ordinary pericarditis from some constitutional peculiarity on the part of the patient, just as a pleurisy will now and then end in an empyema, or a peritonitis in a purulent effusion in the abdomen. I apprehend that the chances are in favor of this explanation. Paracentesis of the pericardium has often been proposed, and even practised: but, unfortunately, in the three cases which I have seen where it would have been feasible, the diagnosis was not made."

LETTER FROM GEORGE FIELDING BLANDFORD, M. D.,

Lecturer on Psychological Medicine at St. George's Hospital, London.

There have been several trials in this country, since the beginning of the year, in which insanity has been alleged for the defence, and concerning them there has been the usual amount of irrelevant writing in the public papers of virulent abuse of so-called "mad doctors," and of laudation of the virtues of British juries as shown by their disregard of such doctors' "theories." Yet, as has been remarked by the editor of the *Journal of Mental Science*, "had the wit of man been employed to devise a tribunal more unfitted for such a purpose, it might have exhausted itself in the vain attempt. In this most momentous issue, however complicated the circumstances, however obscure the facts, a man on trial for his life must stand the verdict of twelve common jurymen. The very terms of science they are ignorant of: and they either accept the data blindly on the authority of a skilled witness, or reject them blindly from the prejudice of ignorance. The former result is commonly what happens in regard to scientific evidence of poisoning; the latter is commonly what happens in regard to scientific evidence of insanity. It is an additional evil of the present system that judges too often share the ignorance of juries, and surpass them in the arrogant presumption which springs from ignorance. Instead of urging them to throw off all prejudice, and aiding them with right information, they sometimes strengthen their prejudices by sneers at the medical evidence, and directly mislead them by laying down false doctrines. They may even go so far as to flatter them in the opinion that they, as men of common-sense, are quite as well able as medical men to say whether a person is insane or not. One cannot justly complain that judges should be ignorant of insanity, seeing that only by long experience and study is a true knowledge of it to be acquired; but it is a fair ground of complaint that, being ignorant, they should speak as confidently and as foolishly as they sometimes do. Here, as in other scientific matters, it is not intuition, but experience, which giveth understanding. Not only is it the fact that judges are ignorant, but they are too often hostile. Governed by the old and barbarous dictum that knowledge of right and wrong is the proper criterion of responsibility when insanity is alleged, they resent angrily the allegation of insanity in any case in which the person has not lost all knowledge of right and wrong. There is a direct conflict between medical knowledge and judge-made law, which must go on until bad law is superseded by just principles in harmony with the teachings of science." Space forbids the quotation of this article at length, but to all interested in this subject its perusal may be recommended. Although the facts of these various cases are probably fresh in the minds of most readers, I propose to touch upon the salient points of three or four of them, for by the events of such trials we may better perceive the defects of the present system, and devise some method by which a just judgment may be arrived at. The trials which created the greatest discussion and difference of opinion were those of the Rev. John Selby Watson for the murder of his wife, and of Christiana Edmunds for the murder of a little boy named Barker. Mr. Watson had been master of a proprietary grammar-school at Stockwell; this school had declined of late years, and Mr. Watson had, in consequence, been dismissed from the post of head-master, and, at the age of sixty-four, was deprived of all income and reduced to entire poverty. One Sunday afternoon, on the servant returning from church, she was let in by her master, who said that her mistress had gone from home, and would not be back till the next day. He took his supper, remarked afterward to the maid that he had spilled some port-wine on the carpet, and went to bed. The next day he said his wife would not be back for several days, and came and went on this and the following day as usual. On the evening of the latter day, he told the servant to send for his medical man if anything was wrong with him. The next morning he went out, came in again, and at about twelve o'clock the girl heard him groaning; went upstairs and found him in bed, unconscious. The doctor was fetched, who says that Mr. Watson was unconscious, breathing with difficulty, with a cold, clammy perspiration on him, and a weak, soft, compressible, and intermittent pulse. He was unconscious for about a quarter of an hour. A paper was found in the bedroom addressed "to the surgeon," which ran as follows: "I have killed my wife in a fit of rage to which she provoked me. Often, often has she provoked me before, but I never lost restraint over myself with her till the present occasion, when I allowed fury to carry me away. Her body will be found in the room adjoining the library, the key of which I leave with this paper. I trust she will be buried with the attention due to a lady of good birth. She is an Irishwoman; her name is Anne." Another paper contained a statement of his worldly affairs, books, MSS., etc. The body of his wife was found in the room he mentions; the skull was fractured, and many wounds on the scalp, hands, and arms. In a glass by the bedside, and in a phial, there was some prussic acid; a horse-pistol was found, with which it appeared that the murder had been committed; and in the time between the committal of the act and the attempt at suicide, he had ordered a large box for the purpose, as it was supposed, of packing and so getting rid of the body, but which he himself avers was only intended for books and papers. The theory of the defence was that Watson had become melancholic, owing to the loss of his daily work and employment, the prospect of poverty, and the failure of strength from approaching old age. His conduct immediately after the murder appeared frivolous and childish, such as to suggest approaching imbecility, while extraordinary depression and an entire change of demeanor and aspect had been noticed prior to the act by several persons. A clergyman and his wife testified that, upward of a month previously, Mr. Watson had come to do duty on Sunday, and had lunched and dined at their house. The whole of the day he appeared so weak, dreary, and listless as to attract their notice, and the clergyman, though unwell, did a considerable part of the duty himself. He replied only in monosyllables, did not originate a single observation, and seemed dejected and depressed in the highest degree. His condition was attributed by them to natural decay consequent upon old age. Another witness, who had known Mr. Watson by sight and reputation for twenty years, met him, on the day preceding the murder, gesticulating and shaking his clinched fist, with his eyes glaring. He had to step out of his way, and noticed his extraordinary look, and then thought his "mind was going." A clergyman, who visited him in prison, and had known him previously, said that his conversation and intelligence were very unlike what he had previously observed. He was anxious about his house and library, and made this remark: "Here's a man with whose Latin the Bishop of Winchester has been pleased, and they have shut him up in a place like this." The medical witnesses differed in opinion. Of two experts who had examined him on the part of the crown, one thought him insane, the other sane. The surgeons of the two prisons pronounced him sane; two experts, called for the defence, thought him insane; two other practitioners, also, were of the latter opinion. The judge summed up strongly in favor of his insanity, but the jury found a verdict of "guilty," strongly recommending him to mercy. This was understood to be a compromise—five of them thinking him insane, the other seven opposed to this view. They had been locked up two nights and three days, and so a verdict was given, which was on the face of it an absurdity, in order that he might not be hanged. He was reprieved, and the sentence commuted to penal servitude, on the recommendation of the judge. This trial deserves some few comments, for it was in some respects remarkable. It was distinguished throughout by the calm dignity, patience, and fairness of judge and counsel. Both the former and latter endeavored to elicit the truth from the evidence, and not to obscure it by Old Baily bullying of the witnesses. From a medico-legal point of view, it is to be recollected that there were indications of mental alteration and depression noticed before the act, and that comments upon his alteration had been made by witnesses prior to the committal. This is, perhaps, the most important point in any case in which insanity is alleged. Frequently, evidence of this is wanting, where the companions of the alleged lunatic are unobservant, or of uneducated and ignorant minds; and here, though the witnesses were unimpeachable, they were few, owing to the extremely retired life which Watson and his wife led. There was an absence of sufficient motive of assuming that there had been a quarrel; it was an occurrence which not unfrequently happened according to the same confession, and beyond the latter there was no evidence of any cause whatever. The melancholic depression noticed by the witnesses was such as might well have terminated in suicide, even if no homicide had taken place; and if the attempt at suicide had been successful, and it was by a mere miscalculation of the strength of Scheele's acid that it was not, who can doubt, as the prisoner's counsel urged, that the verdict of a jury would have been "insanity?" Only the other day, a poor shoemaker, whose failing health and failing eyesight brought home to him the fact that his means of earning bread for his family were fast departing, cut the throats of four of his children and afterward his own. A verdict of temporary insanity was recorded, and every one assumed that about this there could be no doubt. Had this man's suicide not been carried out, it is of course impossible to say what his state of mind observable might have been, but it is conceivable that no greater aberration might have been discoverable than there was in the case of Mr. Watson. For it is a fact well known to scientific observers, and amply recorded in their writings, that with the deed the insane emotional state may pass away. As Griesinger says, in a passage quoted in the article to which I have already adverted: "In regard to a great many of these cases" (of violence toward others), "there is a most important and characteristic circumstance which we have already adverted to in speaking of suicide, namely, the freeing of the patient from his painful emotions and thoughts by the fact that the deed committed has become objective to him: the ease and calm which he gains by the expression of his mental suffering in the accomplishment of the deed—a circumstance which gives to these acts what has been termed a critical significance." This, though a scientific truth, is one which has no meaning for a common jury, who cannot imagine a prisoner to be a madman, who sits grave and composed in the dock, without wild demeanor or raving.

The case of Christiana Edmunds is, in some respects, one of the most extraordinary that has ever occurred, whether we consider the nature of the crime, the incidents of the trial, or the final termination. She was accused, as will be remembered, of causing the death of a little boy, unknown to her, by means of poisoned chocolate-drops. These she conveyed to a confectioner's shop by exchanging them for others bought there, which she returned as not being those required. The circumstances which led to the detection of the crime need not now detain us; the motive of it, however, must be mentioned. She had formed the acquaintance of a Dr. Beard, and, in September, 1870, she gave to his wife a chocolate-cream which made her very ill, and aroused suspicions of poisoning. She was accused of attempting to get rid of Mrs. Beard, having a strong affection for the husband; and, owing to the latter having ceased to speak to her, she attempted to shift the blame from her own shoulders to the confectioner's, by making it appear that he sold poisoned sweets. However, she was proved to have bought, under a false name, considerable quantities of strychnine, and to have exchanged sweets more than once, and also to have given sweets to other children, who were more or less ill after eating them. On the facts there was no defence; but it was alleged that the prisoner was insane. The chief evidence was her family history. Her father died in an asylum. Her mother's father was paralyzed and imbecile, and died in a fit at the age of forty-three; a brother of the accused was an epileptic, and died in Earlswood Asylum; a sister was hysterical, and tried once to throw herself out of a window; a first cousin was an imbecile. The prisoner herself had suffered from hysteria, had been a somnambulist, and had had paralysis, probably hysterical. Her mother said she was greatly excited about the Beards, and two witnesses, in whose house she had lived, had, a twelvemonth before, noticed an alteration and wild look about her, and she had said she felt as if she were going mad. The chaplain of the jail believed she was of unsound mind, and three experts were of a similar opinion, chiefly on the ground that she was utterly deficient in moral sense, as is found in the descendants of insane persons. The judge summed up most violently against the defence of insanity, remarking, which is untrue, that "a poor person was seldom afflicted with insanity, and it was common to raise a defence of that kind when people of means were charged with the commission of a crime." The result was, that the jury found her guilty of murder. She then pleaded pregnancy, and a jury of matrons was empanelled, who, with the assistance of some medical men, found her not pregnant. Now comes the extraordinary part; the judge, after violently attacking the doctors for the defence, making the unseemly assertion that the defence of insanity was only raised when the accused was a person of means, and uttering as a joke a saying of some one that all mankind were mad, seems to have reflected at his leisure that it was possible that there was something in what was urged by the prisoner's witnesses, and accordingly directed or suggested a further examination by other medical men. Sir William Gale and Dr. Orange, the superintendent of the Broadmoor State Lunatic Asylum, had an interview of four hours with Miss Edmunds, and upon this pronounced her insane; the grounds of their opinion, however, they did not give. It will be remarked that in this case the crime was not of the sudden nature of Watson's; an idea of homicidal impulse must be abandoned. Neither was it motiveless, for the accused plainly wished to remove from her own shoulders to those of others the imputation of having poisoned the chocolate-creams eaten by Mrs. Beard. Prior to the act there was the very slightest indication of insanity, and after it all that the witnesses could discover was an absence of moral sense, which does not, according to English law, constitute legal irresponsibility. Yet she has been acquitted, not by law, but by doctors. I quote from the same article: "When all the unsoundness discoverable in a person accused of crime is so very like that moral insensibility which, in greater or less degree, marks the criminal nature, it is no wonder that the public get alarmed, and the lawyers angry. But medicine cannot forego its inquiries or falsify their results on that account; it is a fact of observation that the insane heritage does sometimes make a person very unlike other persons, and greatly diminish his moral sensibility; the evidence is irresistible, and it is vain to shut our eyes against truth, whatever inconvenient results may follow from admitting it." One thing strikes us in reading these two trials and their results; whereas formerly much stronger evidence was required to prove legal insanity in a criminal than in a civil case, at present this is altogether reversed. Formerly a murderer was not held to be legally irresponsible, though he was a madman whose will would have been upset, and who could have been legally confined under certificates, unless he was in such a condition that he could not know right from wrong; now we see the defence of insanity extended to those whose wills could hardly have been overthrown by any evidence of insanity as yet discoverable in them. And the result of this will be to widen still more the breach between lawyers and doctors, unless some alteration in the existing procedure takes place. The doctrine of the knowledge of right and wrong is the first thing that must be abolished. The judges feel themselves that this is an exploded error, and never introduce it without placing it on the shoulders of the bench, who laid it down in Macnaughten's case, so relieving themselves of the odium of it. From remarks made by the judge in Watson's trial, it is evident that this question has been discussed by the present bench, and that they are by no means agreed concerning it. The effect of its retention is that insane persons are legally condemned by a jury under the direction of a judge; and then, if they have interest enough to get their case investigated after trial, they are retried by the Home Secretary, or under his direction, and, it may be, acquitted on the ground of insanity, or the sentence is commuted. If, under the present system, a prisoner is incarcerated in a county jail, and is a person without means, and the trial is held in a country assize-town, far away from experts versed in insanity, it may easily be conceived that, with this interpretation of the law, the unfortunate lunatic is most probably doomed to death, being as unable to procure a rehearing as a scientific defence. This is probably what was in Baron Martin's mind when he asserted that such defence is not set up for poor persons. The crown does not undertake to provide the defence, but only prosecutes; and it is matter of accident if the insanity be proved, unless it be of a kind which is patent to all observers.

Those who are most dissatisfied with the administration of justice as it is, and most loudly call for reform, will regret that the plea of insanity was set up in the case of O'Connor, the boy who held a pistol to the queen. An attempt was made to show, not that the prisoner was insane when he committed this piece of foolishness, but that he was so insane that he could not even plead "Guilty" or "Not guilty" when called upon, and on this point the jury felt themselves competent to form a conclusion, even without hearing witnesses to rebut those who set up the plea. Here, again, hereditary taint was the thing chiefly relied upon. It is possible, however, to push this to an extent incompatible both with science and with law. The boy was a great-nephew of Fergus O'Connor, who died, if we are not mistaken, of general paralysis. If moral insanity due to hereditary transmission may be derived from relatives so far removed as great-uncles, the plea may be extended to a vast number of people. For insanity, after all, though studiously concealed, is not such a very uncommon complaint, to say nothing of epilepsy, paralysis, and other nervous affections. It is quite another matter when the father or mother of the accused has been in an asylum, as in Miss Edmunds's case. Moreover, it is very difficult to understand from the evidence, as we read it, under what description of unsoundness of mind Arthur O'Connor was supposed to be laboring. Watson was alleged to have been melancholic, Miss Edmunds was "morally insane," but O'Connor, what was he? Dr. Tuke says that "he gave a perfectly clear and intelligible account of the outrage, and there was no indication of insanity in that. His manner, however, indicated a hypochrondriacal state of mind, and he seemed to have a very gloomy opinion with regard to his bodily ailments. He thought it a delusion on the part of the prisoner for him to think that the queen would have signed such a document." This, if anything, is insanity; but, Dr. Sabben, the only other lunacy-doctor examined, thought him approaching an imbecile—too imbecile, in fact, to plead. It does not appear that any one had ever questioned O'Connor's sanity prior to the act. In Watson's case, various persons had thought him changed and out of his mind prior to the homicide, and in Miss Edmunds's case there was some evidence that she had not been thought quite right, but neither O'Connor's father nor mother went so far as to say that he or she had looked on him as insane or imbecile. He was a clerk in a warehouse at the time, and no complaint was made of him. He was weak in health, doubtless, but it does not appear that he had been treated as different to other lads. Now, we are far from asserting that insanity is always discoverable prior to the commission of an insane act; acts of homicide have been committed by persons in whom the outbreak of violence was the first symptom; but an act of homicidal impulse is a very different thing from an act such as O'Connor's; and we think that, if the latter was one of conceited folly, it would, in all probability, be that of a person in whom some indications of insanity would have been previously noticed. Insane persons are constantly trying to gain access to Buckingham Place. Several of these have come under my own notice, but as a rule their insanity is remarkably manifest, and is displayed in evident and characteristic delusions. This case gave, of course, great occasion to the lay-press to sneer at mad-doctors, and was a great triumph to its writers, and to the lawyers, who were deeply aggrieved at the result of the trials already mentioned.

The trial of Dr. Minor, an American gentleman, for a homicide which will be fresh in the recollection of our readers, was happily marked by an absence of any legal wrangle on the question of knowledge of right and wrong, or by any difference of opinion on the part of medical witnesses. The accused, according to the evidence of his brother, had sustained a sunstroke, and been in a lunatic asylum. He after this continued to suffer from delusions that he was persecuted and a marked man; he heard noises at night, and thought that people came into his room to disturb him. Being at large and under no restraint, he went out early one morning, and, probably under the influence of these delusions, shot an unfortunate man wholly unknown to him, who was going to his work. He had previously gone to the police and complained of being persecuted by the Fenians, and of his insanity there was no doubt. The judge stopped the case and directed an acquittal, if the evidence satisfied the jury that "the prisoner at the time he committed the act was not in a state to distinguish right from wrong, and was not capable of controlling his actions." We quote from the *Times* report. If this is correct, the addition made by the judge to the usual formula is important. Neither of the judges in the Watson or Edmunds case said a word about capability of controlling actions, neither do we think that it was contemplated that it should be put in this form to a jury by the bench of judges of 1843. Yet it is a question which should certainly be submitted, though there may be a doubt whether jurymen are the persons most fitted to decide, for the responsibility of an offender lies in his being able to abstain from what he does. An insane person may know right from wrong in the abstract; but if, by reason of his insanity, he is driven to homicide, and is so under the influence of the disorder that he cannot restrain himself from violence, clearly he should not be held responsible. Here, again, we see, as we have remarked elsewhere, how judges vary in their interpretation of the law. Probably Dr. Minor knew in the abstract as well as Miss Edmunds that murder was wrong, yet the judge directs his acquittal. The judge directs, in the most violent manner, the condemnation of Miss Edmunds, if the jury thinks she knows right from wrong. The jury find her guilty accordingly, nobody doubting that she possesses such knowledge. And then the judge directs or sanctions her being further examined by two other doctors, who pronounce her insane, but give no opinion as to her knowledge of right and wrong. She is then acquitted on the ground of insanity, and placed in an asylum. The sentence is not commuted, but reversed, and the previous trial is rendered a farce. Of course, every one feels either that the jury in the first instance were competent to decide the question, in which case the verdict ought to have been upheld, or they were not, in which case trial by a common jury ought to be abolished. But those who look further know well that the alteration most urgently required is in the form in which the question is put to the jury. They should be asked, Was the accused insane or not, when the act was committed? Whether a common jury is competent to decide such a point is another matter. In civil cases a man's insanity is always weighed by a special jury, but it is not uncommon to find in English law that property is more jealously guarded than life or person. We have our own ideas on the reforms required, but it would be out of place to give them here.

TEPID BATHS IN THE TREATMENT OF FEBRILE DISEASES.

In the *Annales et Bulletin de la Soc. de Med. de. Gand* the results are given of a series of experiments by M. Schutzenberger on the temperature which may advantageously be adopted in the use of baths in febrile affections. We give an abstract of the article prepared for the *Boston Medical and Surgical Journal.*

For more than a year M. Schutzenberger has conducted his investigations. So long as the heat, one of the symptoms of fever, remains below 39 deg. 05 cent. (103 deg. Fahr.), even when the pulse is high, no serious danger may be looked for to the economy. But when the temperature rises to 104 deg. and beyond, it becomes in itself dangerous to the organism; it shows that an active combustion is going on among the tissues, which causes their rapid destruction, so long as the fever continues. In order to diminish the heart's action, and to lower the temperature, recourse has been had to digitalis, and to methods of external refrigeration, applied in different ways. It has been noticed that, if the baths at 15 deg. to 20 deg. (59 deg. to 68 deg. Fahr.) produce a marked depression of the heat, this advantage is counterbalanced by serious inconveniences. Many of the sick are seized, immediately after their introduction to the cold water, by a chill; the use of the bath becomes disagreeable to them, and they refuse it altogether. In addition, serious attacks of pneumonia, with the occurrence of plastic exudation, often supervene on the use of the cold bath.

To avoid these dangers, M. Schutzenberger advised the use of tepid baths, of which the temperature varies from 22 deg. to 27 deg. (71 deg. to 80 deg. Fahr.). During the years 1870-71, these baths have constituted the principal treatment of those under his care suffering from typhoid fever; of those at least, whose temperature, rising above 39·5 deg. (103 deg. Fahr.), demanded active treatment. The simple and mild cases, in which the temperature did not exceed this point, were left to themselves. The baths were continued for fifteen or twenty minutes. until the supervention of the so-called goose-flesh, or a chill. A lowering of the temperature, varying from 5 deg. to 1 deg., was always noticed within half-an-hour from the bath; in some cases this lowering of the temperature even reached 1 deg. or 2 deg.; and, in a few cases, it was not materially changed. In one case, which had been more carefully watched on account of the unusual symptoms developed, the bath caused an increase of the temperature.

The lowering of the temperature, observed after the bath, continued, in a majority of cases, during the remainder of the day; but, on the next day, a fresh elevation of temperature obliged a return to the bath. After a certain number of baths, the thermometer showed that the temperature did not return to the point reached before the use of the bath. By continuing the bath thus methodically, M. Schutzenberger has been able to keep the fever within normal limits—that is, below a temperature of 39 deg. (102 deg. Fahr.).

The favorable influences of the baths has been noticed in other symptoms than the heat alone. The nervous phenomena—delirium, insomnia, and the like—have diminished in their intensity, the tongue has become clean, the abdominal disturbances have been decreased, meteorism has not supervened, and, when it has already been present, it has yielded quickly to cold compresses. As an addition to the treatment, cold was applied to the head, cold drinks were used, and quinine prescribed to the extent of 20 to 30 centigrammes daily. The diet consisted of milk and broth, when the condition of the tongue allowed.

By this method of treatment, the statistical results obtained in the cases of typhoid fever during the year 1870 were remarkably favorable. Of thirty-eight patients, one died, during convalescence, from bed-sores; the remainder recovered.

M. Schutzenberger has noticed, in like manner, that tepid baths have been equally efficient in many cases of puerperal fever, due to peri-metritis, in peri-uterine abscesses and the like, in which the temperature was raised to 42 deg. (107.6 deg. Fahr.), and injections of quinine were inert. Baths, given to the number of five in twenty-four hours, produced a rapid diminution of the temperature and amelioration of the symptoms. In variola, baths have also produced favorable results; but, in this case, tepid baths have been more beneficial than cold. In certain cases of scarlatina, baths at 15 deg. to 20 deg. have appeared to exert a favorable influence on the disease.

It is known that Trousseau favored the use of baths at a temperature of 25 deg. (77 deg. Fahr.) in scarlatina. The water, which was not cold, except relatively to the temperature of the patient—which rose to 41 deg. (105 8 deg. Fahr.) in the axilla—produced wonderful physiological results. Under its influence, the burning heat of the skin gave place to a pleasant moisture; the pulse fell from ten to forty pulsations; the vomiting and diarrhea ceased; nervous symptoms disappeared; and, instead of being pale, the skin took on the rosy hue usually seen during the eruptive stage of the disease.

WEST VIRGINIA STATE MEDICAL SOCIETY.

The Society met Thursday morning, June 6, at 9 o'clock—Dr. Lazzell in the chair.

Dr. Safford read a voluntary paper on Specific Contagion of Puerperal Fever, which was referred to the Committee of Publication.

Dr. Jepson offered the following as an amendment to the By-Laws: "A committee consisting of two members to be called 'The Committee on New Remedies,' shall be appointed annually, whose duty it shall be to make a written report at the next regular meeting succeeding their appointment on such new remedies and appliances, medical and surgical, as may be deemed of value and importance to the profession." Accepted.

Dr. Blum laid upon the table a series of anatomical plates, and invited their inspection by the Society.

Dr. Frissell, by invitation, adressed the Society on the Treatment of Cerebro-Spinal Meningitis.

Dr. Jepson reported a case of sudden death of a dropsical woman, in which a post mortem, one hour after death, revealed the presence, in the right ventricle and pulmonary artery, of a firm, elastic clot, over 8 inches long.

Nominations for President being called for, Dr. Safford nominated Dr. Roemer, of Charleston, and Dr. Bruce named Dr. R. H. Cummins, of this city.

Dr. Cummins, receiving a majority of the votes cast, was declared elected President for the ensuing year.

The election of Dr. Cummins was, on motion, made unanimous.

Dr. Davis nominated Dr. Roemer for First Vice President, and on motion the election was made unanimous.

Dr. Baird nominated Dr. Davis for Second Vice President.

Dr. Davis declined, but the Society elected him unanimously.

Dr. Ford nominated Dr. Moore, of Wellsburg, for Third Vice President; Dr. Bates named Dr. Hall, of Ritchie County; Dr. Hazlett, Dr. Young, of New Martinsville.

After three ballots, Dr. Moore was declared elected Third Vice President.

Nominations for Secretary being in order, Dr. Hall nominated Dr. Wm. Dent, and on motion of Dr. Jas. Cummins the election was made unanimous.

Dr. Jas. Cummins nominated Dr. J. C. Hupp for Treasurer, and there being no other, the election was made unanimous.

Drs. W. J. Bates, Young, Hazlett, Safford, Roemer, Baird, Hall, Allen, Davis, Brock and Hildreth were nominated for Censors.

A ballot was had which resulted as follows: Dr. Bates 22; Dr. Young 17; Dr. Hazlett 11; Dr. Safford 14; Dr. Roemer 12; Dr. Baird 12; Dr. Hall 16; Dr. Allen 17; Dr. Davis 14; Dr. Brock 9; Dr. Hildreth 15.

Drs. Bates, Young, Allen, Hildreth and Hall received a majority of the votes cast, and on motion of Dr. Baird the several candidates having the highest number be declared elected a Board of Censors for the coming year. Adopted.

Thereupon Drs. Bates, Young, Allen, Hildreth, Hall, Safford and Davis were anounced as composing said Board.

Adjourned until two o'clock.

AFTERNOON SESSION.

The Society assembled pursuant to adjournment.

President Lazzell made the following appointments for the ensuing year.

Committee on Publication—Drs. Bates, Hupp, Hildreth and Wm. Dent.

Committee on Necrology—Drs. Hazlett, Berkebile and Roemer.

Committee on New Remedies—Medical Division—Dr. Jepson;—*Surgical Division*—Dr. Pipes.

Essayists—Drs. Davis and Berry.

Committee on Medical Botany—First District, Drs. Hildreth and Wiesel; Second District, Drs. Bronson and Brownfield; Third District, Drs. Roemer and Harris.

Committee of Arrangements—Dr. Davis and the members of the Society in Parkersburg.

Committee on Climatology and Epidemics.—Drs. Roemer, Harris, Hildreth, Wilson and Ramsay.

The committee appointed to memorialize the Legislature for the repeal of all laws forbidding the study of practical anatomy, asked further time in which to report. Granted.

A volunteer essay on Hernia was read by Dr. Brock, and referred to the Committee on Publication, and permission was granted to Dr. Brock to publish it in such other medical publication as he may select.

The report of the Board of Censors, to which was referred the matter of settlement with Dr James E. Reeves, late Secretary, was taken from the table and read. It shows that Dr. Reeves was indebted to the Society in the sum of $13—$5 admission fee of Dr. Schumaker, and $8 personal dues. This has since been settled. The Board further state that they have found, in an examination of the case, a want of due respect on the part of Dr. Reeves toward the gentlemen composing this Society, in addressing a letter, abounding in highly offensive language, to the chairman of a committee appointed by your President; and the Board of Censors would respectively insist that such a course of action is, and should be, contrary to the tenor of the code of ethics by which this Society is governed, is liable to severe reprehension, and unless perfectly adjusted by Dr. Reeves in his full acknowledgement of wrong, we recommend his expulsion.

The report of the Board of Censors was adopted.

On motion, the letter referred to in the above report was read.

Dr. Reeves then made an explanation of the causes that produced the letter. His apology was not deemed satisfactory.

Dr. Reeves then made the following apology in writing:

" In my letter to the special committee, I say that I saw certain credits, etc., made on the Treasurer's books by the Treasurer, that if they do not now so appear thereon they must have been erased, etc., or that my eyes did not serve me correctly. The said committee of unprejudiced gentlemen have said, after an examination of said records, that they find no such evidences of alteration. Therefore, I was surely mistaken, and I heartily regret having made this declaration or any other unkind allusion to the Society. " JAMES E. REEVES."

On motion, the apology was deemed ample and sufficient.

The President then delivered his valedictory as follows:

Before the adjournment, allow me, gentlemen, to return my cordial thanks for your uniform kindness and assistance in conducting the proceedings of this Society. I am sensible of many imperfections and mistakes, but they have been of the head and not of the heart. I am fully identified with the interests of our Society to promote its interests and advancement.

To the profession and citizens of Wheeling we are largely indebted for the pleasant meeting we have had. That this has been an interesting and profitable meeting we all fully realize, and now feel that our Society is more firmly established in the hearts of the profession than ever. Thanking you all again, and hoping we may all meet one year hence at the Parkersburg Wells, I bid you adieu.

The Society then adjourned to meet at Parkersburg Mineral Wells, on the first Wednesday in June, 1873.

MEDICAL GLEANINGS.

On Absorption Through the Skin from Full Baths—Dr. Chrzonzewski details some experiments in the *Wiener Med. Wochenschrift.* The anus and the urethra being covered up, and in thick-haired animals the skin shaved, in a two per cent. solution of muriate of morphia the animal died in eighteen to twenty hours; in one per cent. of strychnia, in two and a half to four hours; in one per cent. of nicotine, in one to one and a half hours; in two per cent. of cyanide of potassium at 2 deg. C., in a half to one-third of an hour; more quickly at a higher temperature.

A boy, æt. fifteen, remained six hours in a sitz bath (64 deg. C) of infusion of digitalis (one-half pound to four buckets of water); fourteen hours afterwards the influence on the heart manifested itself, the pulse fell from 84 to 60, gastric and cerebral symptoms came on and lasted two days.

In order to test the method of absorption, such experiments as the following were instituted: Ferro-cyanide of potassium was injected into the veins of a dog, and the animal placed in a bath containing an iron salt; in three to five hours the veins and capillaries of the skin were stained an intense blue, the cellular tissue remaining colorless.

The following conclusions were arrived at: 1. The skin of man and animals is permeable to substance in watery, and still more easily in spirituous solutions. 2. Elevated temperature hastens absorption. 3. Absorption may take place in various ways—diffusive (Indigo carmine), through the blood-vessels (formation of Prussian blue), and through the lymphatics (ammoniacal solution of carmine). 4. The lymph vessels have their origin in the cells of the connective tissue.

Tincture of Iodine in Vomiting.—Schneider, of Offenburgh, in a patient who was taken with salivation and vomiting after intermittent fever, which vomiting continued for several weeks incessantly, in spite of various remedies, administered the tincture of iodine in doses of ten drops on sugar thrice daily, and obtained, after the first dose, the cure of these symptoms. In the same way, too, he treated with great success a soldier laboring under intermittent fever, which had resisted all the antipyretics from quinine to arsenic. The intraparenchymatous injection of iodine in the treatment of hypertrophied tonsils had been used with great success by Dr. Rumbold. The liquid injection is composed of 10 centigrammes of iodine, 2·40 grammes of iodide of potassium, and 30 grammes of water. After each injection, slight inflammation succeeds, which soon disappears. Twelve to seventeen injections are required to restore the tonsils to their normal size, two injections weekly. This practice has the advantage of retaining intact the substance of the tonsils.

COMBINED ACTION OF CHLOROFORM AND MORPHIA.—The attention of the profession has lately been called, more particularly than hitherto, to the influence of morphia in facilitating and prolonging the anesthetic influence of chloroform. Experiments instituted by Claude Bernard and other European scientists, appear to have demonstrated that the combined action is not only more prolonged, but also safer than that of chloroform alone. One third of a grain of morphia is injected into the skin 15 or 20 minutes before the inhalation. The inhalation is followed by a brief period of excitement, after which comes complete anesthesia, which is very easily kept up by small quantities of chloroform. In an operation which lasted one hour and three quarters, the patient was kept completely insensible for that length of time by an ounce and a half of chloroform. The risk of death is regarded as much diminished by this plan of treatment.—*Pacific Med. Journal.*

BOAST NOT.—The late Mr. Lynn, an English surgeon, cut twenty-five patients for stone without losing one. He then boasted that he had, at last, discovered the secret of performing lithotomy with success. Afterwards he declared that the Almighty punished him for his presumption, for he lost the next four patients that he cut.—*Pacific Med. and Surg. Journal.*

It was rather a small business for the great God of the universe to kill four innocent, afflicted men to dampen the feathers of a self-conceited, egotistical, surgical ass. This combination of egotism and blasphemy is a bow-shot beyond anything we have ever seen in print, or out of it. His last boast was greater than his first. Punish *him* by killing four other men! ! !—*Nashville Journal Med. and Surg.*

FLUID EXTRACT PINUS CANADENSIS.—A physician informs us that he has made use of this extract largely, and is surprised at its uniform and reliable effects in affections for which it is suitable. It is an astringent of rare value, and may be administered when most of the astringents now in common use are inadmissible or without effect.

"In some of the affections of the rectum, vagina and cervix uteri, it is unexcelled as a remedy. Cases of gonorrhea have been cured by it in the course of a few days without other treatment. The statements made by Dr. J. Marion Sims and others as to its value, are not exaggerated.

"It is to be hoped the profession will try it more generally. I have now used it in many cases—Mr. S. H. Kennedy having first drawn my attention to its virtues, and I have used the fluid extrct of his manufacture."—*Medical Journal.*

THE ESSENTIALS TO CONCEPTION.—Condensed by Chrobak, in the Med. Chirurg. Rundschau, from Dr. S. Kristeller's article in the Berlin Klin Wochenschrift. 1871. Translated for the *Re-*

view, by J. Henry Carstens, M. D. Kristeller refutes conclusively the idea of conception as held at present, especially the theory of direct injection by means of the approximation of the two orifices; of the piston like action of the penis, and the suction of the uterus, produced by reflex action.

Kristeller has come to the conclusion, based upon about one hundred observations, that in mature women the mucus that is produced in the uterus is suspended from the uterine orifice in the form of a string, one-fourth mm. in diameter and one-sixth cm. in length. The best way, according to the writer, to bring this alkaline mucus to view, is by the introduction of a speculum, and then applying with a brush some liq. plumb. acet. This mucus string, on the quality of which, according to the writer's idea, a great deal depends for conception, is after menstruation longer and stronger; during pregnancy it degenerates to a white, cheese-like paste, or a mixture of whitish and gelatinous substance, and it also loses its marked alkaline reaction, even becoming acid. In women who do not cohabit, this stringy formation is lost, also in widows and during the period of involution.

In many sterile women no such string is found, on acçount of the thinness of the mucus, or the mucus is acid and gelatinous, gray or white. It is worth mentioning that we can improve or even produce, this mucus string, by the introduction of a glycerinized tampon.

It is, therefore, very probable that this mucus string plays an important part in conception, and this latter, the writer imagines, takes place in the following manner: Starting anteriorly, the axis of the vagina does not form a concave line, but at first this line is convex, passing over the prominence of the perineum, and then first passing in the concave line of the pelvic axis. We therefore find a *cul de sac* behind the perineal prominence, which allows the finger to pass in some distance to the right, as well as to the left which contains a greater or less number of air bubbles. These air bubbles, which are mixed by purely mechanical means with the spermatic fluid, seem to be of great importance to the vitality of the spermatozoa. If we examine the mucus string which depends from the uterus, as well as that part of it which is inside the womb, we shall find everywhere a large number of actively moving spermatozoa.

The writer thinks it, therefore, justifiable to claim that the mucus string, which is very favorable for the onward movement of the spermatic fluid, performs the part, during impregnation, of a gubernaculum, by which the spermatozoa may come into the uterus, and from which there proceed farther in the known manner. Cases of conception with an unruptured hymen, stenosis of the vagina, hypospadiasic penis, etc., can in this way be ealisy explained.—*Virginia Clinical Record.*

Book Notices.

A SYSTEM OF SURGERY; PATHOLOGICAL, DIAGNOSTIC, THERAPEUTIC, AND OPERATIVE. By SAMUEL D. GROSS, M. D., LL. D., D. C. L. Oxon., Prof. of Surgery in the Jefferson Medical College. Illustrated by upwards of 1400 engravings. Fifth edition, greatly enlarged, and thoroughly revised. In two volumes. 1872. Philadelphia: Henry C. Lea. Cincinnati: Geo. E. Stevens & Co.

The work of Prof. Gross on surgery is probably the finest work on the subject in the English language. The labor and learning which it represents is astonishing indeed. It embodies the results of the observation and experience of a strong logical mind for a period of thirty-two years. The profession of this country may well be proud of it; for, so far as our knowledge extends, it is unrivalled. We think there can be but one opinion of its pre-eminence over the great works of Erichsen, Fergusson, Syme, and others. The *Lancet*, of London, speaks of it as "the most complete work that has yet issued from the press on the science and practice of surgery."

From the time Prof. Gross taught surgery in the University of Louisville, for a long time the most flourishing medical school in the Southwest, to the present time, he has been unceasingly devoted to the duties of an arduous practice, both private and public; to the composition of various monographs having a direct bearing upon a number of the subjects discussed in these volumes; and to the study of the great masters of the art and science of medicine and surgery. The work should, therefore, be regarded as embodying the results of the ripe experience of a person possessed of unusual powers of mind, of extensive reading, and of much reflection. It has been the aim of the author to embrace the whole domain of surgery, and to allot to every subject its legitimate claim to notice in the great family of external diseases and accidents. Much space has been devoted to the consideration of inflammation and its results, from the conviction of the author, grounded upon long and close observation, that there are no subjects so little understood by the general practitioner.

Upon the edition now issued, upwards of five years of arduous labor have been expended. Every chapter has been thoroughly revised: the text has been augmented by an amount of matter fully equal to 450 pages; and numerous new woodcuts, nearly all expressly prepared for the purpose, have been introduced. Many portions have been entirely re-written, and every effort has been made to condense the language; while an enlargement in the form of the work has prevented any considerable increase in the number of pages.

Of the engravings which adorn the volumes, upwards of six hundred are original.

Editorial.

REMOVAL OF BOATMEN FROM GOOD SAMARITAN HOSPITAL.—The sick boatmen who have heretofore been boarded and medically treated at the Good Samaritan Hospital at the expense of the government, and who formed the principal clinical material of that institution, will hereafter be provided for at the Cincinnati Hospital—the government having given the contract for their keeping to the trustees. This fact has created great excitement and no little indignation among the members of the faculty and the friends of the Medical College of Ohio.

Having undertaken to set up an opposition institution to the Cincinnati Hospital—filled with malice because they could not monopolize it to the exclusion of all others.—they are about seeing their efforts to break it down proving futile, and, instead, their own enterprise passing away like smoke.

The clinics of the Good Samaritan Hospital never did bear any comparison with those of the Cincinnati Hospital, but the few boatmen, with the few cases which were drummed up and hired for the purpose from the outside, afforded a little material for a show of clinics for the young men of the faculty of the Ohio College composing the staff to hold forth in hifalutin lectures, and quote Niemeyer, Rokitansky, and other German authorities from the quotations found in Braithwaite's Retrospect and other English works. The instructions given there have all along been misrepresented the same as the *Lancet and Observer* showed the matriculation lists of the college to be misrepresented. It is hoped that it will now be squelched out altogether, and that there will be gathered in the Cincinnati Hospital all the material available for bedside teaching. With the grand building for hospital purposes that is possessed by the city of Cincinnati, all the clinical material that can be made use of for instruction should be gathered into it until filled, and not scattered around among half-a-dozen private institutions. With all in one institution, we would have a hospital here that would bear a very favorable comparison with the largest and best of the eastern cities, probably with any in the world. If Cincinnati is to be made a "great medical centre," which some we wot of profess to desire, it must be brought about in some such way.

But our printer has become most importunate for copy, the time having more than expired when we promised him the last line for our present number. We will therefore clip the following from the *Cincinnati Gazette* of July 29th, which embodies pretty much the whole matter, and may be regarded as a fair exposition. We can cut and paste faster than we can write, and could get up a prize essay a week on placental pathology or any other pathology if we indulged in that way. It will be perceived that an injunction has been applied for against the trustees.

"The hospital trustees last year tried to get rid of all strife by a rule that no member of a college faculty shall be admitted to a medical place in the hospital, or to lecture there. The hospital practice and the lecturing thus fell to outside physicians. This placed all the colleges on an equality, and likewise naturally united some of them against the hospital management. And it may be that it left the hospital rather a lean medical staff.

"The feeling which was constantly brewing has now embraced the opportunity of the recent contract to take care of the mariners to make an attack. Our readers have probably seen the figures of this contract. The hospital Trustees made a lower proposal than Sister Anthony, of the Good Samaritan Hospital, and took the mariners. The charge has been harped on considerably, in the papers, that the Trustees took them at a rate nearly a dollar a week less than the average cost of supporting their patients, according to the statistics of their annual report. This affair of the price is a question of economy which, perhaps, a boarding-house keeper could cipher out to be an economical operation. Perhaps he would say that, inasmuch as the main features of running the concern have to be kept up anyhow, this additional number can be taken at a less price than the average of the previous number, and that they will reduce the average cost of the whole. The economical objection is as if one should say that if it costs a steamboat $1,000 a day to run, which is $100 each for ten passengers, she can not afford to take another ten for any less fare.

"But the economical question is used only for sympathy. The ostensible case is made on the alleged illegality of receiving patients from outside of Cincinnati. Upon a complaint of this by a medical tax payer, who charges in substance that his substance is being taken to put into the substance of persons who are not residents of Cincinnati, an injunction has been applied for to restrain the Trustees of the hospital from receiving the sick river-navigators. The truth of history requires it to be stated that these college faculties had the run of the Good Samaritan Hospital, and that they look upon this marine contract as snatching so many demonstrable subjects from under their hands. It may be a mixed question whether the Cincinnati Hospital is limited to city subjects; and it may be further mixed by the circumstance that when it was founded the State made it a gift, one condition of which was that it should receive the navigators.

"But we do not assume to judge the law in the matter, since that is to be attended to by the craft. We refer to this in order to state further that they who have begun this contest have other points, reaching down into the constitution of things. They propose, if this point fails, to challenge the Trustees as usurpers, holding their offices without lawful authority. This is upon the ground that when the General Assembly, last session, enacted an amendment to the general municipal code, providing for putting the control of the city institutions into the hands of the Council, it excepted the Cincinnati Hospital This, it is alleged, is contrary to the Constitution of the State of Ohio. Thus it appears that an act of the General Assembly embraces a subject which it excepts, and, by virtue of its constitutional defectiveness, makes void the previous laws of the existence of the hospital.

"In point of fact, this will not touch the marine question, nor can it be piled on the other to magnify the case for an injunction. It will operate by a writ of quo warranto to demand of these usurping Trustees by what authority they hold their offices. And if they are found to be ususpers, then what? Even if all acts of incorporation must be general, can an act govern institutions it excepts? Is it not this act that is void, instead of all the previous acts regulating the hospital? But when a demonstration goes down to the fundamentals in this way, it will not fail to find constitutional conveniences. A Louisiana Judge found that the Louisiana act confining butchering to a certain quarter was contrary to the equal clause of the 14th amendment, in that it abridged the privileges and immunities of citizens. If this does not suffice, there is the Declaration of Independence, our fundamental law, by which all men are created equal and with the right to the pursuit of happiness, and not to be governed or taxed without their consent."

The faculty of the Ohio College, perceiving what little clinics they did have about to pass away, have undertaken to substitute *chemical demonstrations* to attract students. Chemistry, of course, is a department of medicine which we would by no means depreciate; but beyond a knowledge of its principles and the manipulations, which can be easily learned by any intelligent student in the regular lectures upon it, physicians have no use for it. That demonstrations in it are the equivalent of clinical instructions is absurd. We learn from the *Clinic* that "the long room above the laboratory is to be fitted up with tables and apparatus for each student, and chemistry is to be taught, as it only can be taught, directly in the laboratory. The same action provides also for the appointment of a competent Demonstrator of Chemistry, who is to supervise experimentation, etc., in chemistry in the same manner that the Demonstrator of Anatomy devotes his time to practical instruction in his department." So then there is to be a Demonstrator of Chemistry (we wonder who he will be, for there is not an analytical chemist among all the friends of the Ohio school of this city) and a Professor of Chemistry. Of course, when students are in the laboratory they cannot be in the lecture room, or the dissecting room, or the hospital. Instruction, of course, must be neglected in some department of more value to the student when he becomes a practicing physician, than chemical demonstrations will be. When a student has been taught of what calomel is composed, does it increase the value of the knowledge to be skilled in making it? The ignorant and thoughtless may be deceived by such pretentious announcements, but no intelligent and thoughtful person will. It is too thin.

COMPARISON OF ANTISEPTICS.—A series of experiments, by Dr. Dougall, upon the relative powers of substances to prevent the generation of animalculæ, gives some interesting and suggestive results The metallic salts, he finds, possess the highest preventive powers—sulphate of copper occupying the first place, and nitrate of silver the lowest. Of the organic acids, benzoic acid has the highest, and acetic acid the lowest power,—carbolic acid occupying the fifth rank. Chloride of aluminium, among the salts of the alkaline earths, stands the highest. The inorganic salts have but little power, with the exception of bichromate of potash, which ranks very high. The poisonous vegetable extracts appear to be inert.

The inference made from these observations is, that if carbolic prevents the growth of germs in wounds, etc., solutions of chromic acid, bichromate of potash, and the sulphate of copper have the same property to a still higher degree, and should have the preference, except when their use would be attended with some positively injurious effect.

SCIENCE AND A KIND HEART.—A celebrated physician was called upon recently by a person suffering from rheumatism, who insisted upon his doing something for him. The physician wrote a prescription, and as the patient went out of the room, said to him, "I wish you would let me know if that does you any good, for I have myself been very much troubled with rheumatism lately."

We haven't the name of the man, but he was of Terre Haute, who died last month from swallowing a pocket-knife and erroneous medical treatment combined. A party who keeps a store there says he got along very nicely so long as the knife was closed, but when Dr. Terwilliger gave him opening medicine it killed him.

CORONERSHIP.—An election for coroner takes place in this county this fall. This is an important office, and should be well filled by a good medical man. Dr. J. W. UNDERHILL, the present incumbent of the office, we understand, will be a candidate for the nomination before the *Republican County Convention*, and will likely be nominated. Dr. Underhill has served the county most satisfactorily during his term, and if he should be re-elected the profession would be well satisfied.

Dr. J. W. HADLOCK will be a candidate for the nomination before the *Liberal County Convention*. Dr. Hadlock is a good physician, and would, no doubt, fill the office creditably, and to the satisfaction of the profession.

There may be other candidates before each of the conventions of which we have not as yet heard. We have only learned of the two we have mentioned. These we know to be good men. But whoever may be chosen we hope he may be one who will creditably represent the profession.

COLLEGES.—In this number of the MEDICAL NEWS, besides the Annual Announcement of the *Cincinnati College of Medicine and Surgery*, there will be found advertisements of the *Cincinnati College of Pharmacy*, and Medical Department of *Iowa State University*.

THE

CINCINNATI MEDICAL NEWS.

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ORTHOPEDIC SURGERY.

Read before the Iowa State Medical Society, February 23rd, 1870.

By William Watson, M. D., of Dubuque.

The term Orthopedic Surgery has been generally accepted to mean that particular sub-division of surgery which considers the more permanent deformities of the skeleton and motive apparatus, their causes, prevention, and treatment. Although the knowledge of deformities dates back and is found in the earlier works on surgery, but very little was done to investigate the causes and advance the treatment for many centuries, and the subject, as at present known to the profession, is the work of the last century. It is but little over a century since the first attempt to collect the scattered knowledge upon this subject was made; as was also the first systematic attempt to trace the causes and establish some general principles of treatment; and ninety years since, the first institution for the treatment of deformities was established by Venel, in Switzerland. From that time, orthopedy began to assume a more scientific character. It received its most important impetus from Stromeyer, by the introduction of subcutaneous section of muscles and tendons, in May, 1831, as this at once rendered a large class of cases amenable to treatment which had before been beyond general means of command. The next important advance was made by the discovery of anesthetics, which by relieving pain and controlling spasmodic action, rendered many operations trifling which had before been of a formidable character. Within a few years, the subject has attracted considerable attention, and has been cultivated assiduously by many eminent men; rapid progress having been made in establishing correct principles of treatment, as well as in the construction of improved apparatus. Many eminent surgeons, of Germany and France, have been deeply interested in this subject, and having procured the founding of institutions devoted exclusively to the treatment of deformities, they have been able to conduct systematic investigations and determine important principles. We also find honored names among the English surgeons, and London possesses a noble institution devoted to this class of surgery, and nearly all the large metropolitan cities have public charities for the same purposes. In this country, attention to the subject has been siill more limited, and although cultivated to some extent in our largest cities, this country does not possess a public institution, devoted to the treatment of deformities, at all commensurate with the importance of the subject.

The causes of deformities are, changed and morbid action of the nervous system, diseases of the joints, vitiated nutrition, and injuries; this latter class occuring almost entirely in early childhood. Among the cases originating primarily in the nervous system are those resulting from paralysis, which may give rise to deformities in different ways; as, a joint may lose its firmness by the relaxation of the soft structures, allowing it to bend according to the inclination of the surfaces of the bones; or by the paralysis of one group of muscles—the opposing group when in action will draw the limb to that side, and by continued irritation they become permanently contracted; if this occurs in early childhood, the bones may develop in this abnormal shape, rendering the deformity permanent. To this class of cases belong most of the deformities of the pedal extremities, and that these causes may exist, and their effects be developed in utero, the existence of congenital talipes demonstrates. Similar results are observed in diseases of the joints, when spasmodic contraction of a group of muscles occurs from the irritation produced by the joint being reflected by the spinal nerves. This is also now received as the explanation of the pathological action in those cases resulting from traumatic injuries, where the normal action of an extremity is impaired by irregular muscular action which, if permitted to continue, causes changes in the structure of the muscles, rendering the difficulty permanent and irremediable except by an operation.

Deformities from diseases of nutrition are fortunately rare, as they are usually dependent upon a lack of wholesome food, a want entirely unknown in this land of plenty. The measures necessary to be used for the prevention of deformities are to a great extent but a part of the treatment for relief; as the large majority of this class of difficulties, being progressive in their character, a prompt diagnosis is all important, as during the early stages of the disease, by the patient and persistent use of the means indicated, we may arrest its progress, and succeed in preventing that which, if left to itself, would become an unsightly deformity. Here exists one of the difficulties attendant upon this class of practice, as in the majority of cases the surgeon is not consulted until the difficulty is well developed, and the mischief is already done.

Among our means of relief may be enumerated rest to the affected part when any active inflammation exists, as in the early stage of spinal curvature or hip-disease: surgical assistance by subcutaneous division of tendons or muscles, as in the second stage of the latter, or in cases of local paralysis as in some varieties of talipes; mechanical apparatus to give rest to the inflamed joint and restore the distorted limb to its natural position and movements, leaving it as unencumbered as possible, and as free in the efforts it may be capable of making towards regaining its lost powers. We may also expect benefit from the use of electricity, the shower-bath, friction, passive motion, and such medicinal remedies as tend to awaken and give tone to the affected nerves, whether the difficulty be local or general in its nature. In the use and application of mechanical apparatus we find great diversity in the reports of success. This may, to some extent, account for the great variety of appliances that have been devised to meet nearly every indication; and a careful examination of the record of cases will show favorable reports of nearly every one of them, and will also show a failure on the part of nearly every surgeon in an attempt to use the apparatus of some predecessor. This apparent discrepancy and these failures undoubtedly arise from not keeping in view the principles which should guide in using the mechanical appliances. The cases should be those to which they are clearly adapted, and it should be carefully adjusted so as to cause only the minimum amount of discomfort, and also that the force it is intended to exert shall be carefully graduated, as the golden rule in this kind of treatment is "to make haste slowly." I am satisfied many fail from attempting to progress too rapidly, while many a patient gets discouraged because the improvement appears to be slow. Where we have malformation of the bones to overcome, it can only be done by long-continued moderate pressure; and where over action of one group of muscles or imperfect action of another is to be rectified, continued restraint upon one, or stimulating and assisting the other, will, if patiently persisted in, generally give us more or less satisfactory results. These remarks will apply with equal force to those cases involving diseases of joints or destruction of bone; as impending caries of the spine, morbus coxarius, or inflammation of the ankle-joint. An early diagnosis, a persistent restriction to the recumbent position until the active stage has subsided, facilitating a free discharge of pus, if ulceration has taken place, followed by a well adjusted brace, splint, or protective apparatus, will give the assistance in many cases necessary to keep down the irritation and allow the normal action of the structures with a gradual restoration of power. The number of cases coming under the personal observation of any practitioner located among a population, such as our state affords, is quite limited, and cannot well be greatly extended for reasons I will notice before closing this report.

As your committee have not been fortunate enough to secure any co-operation in furnishing material for this report, although application has been repeatedly made to gentlemen who have had cases under treatment, they will be compelled to content themselves with briefly noticing cases that have come under their own observation, to illustrate the different varieties of deformities they have treated without entering into a discussion of the anatomical changes involved, as these are fully discussed in all the standard works that treat of this subject.

CASE I.—Congenital varo equinas of both feet, in a strong healthy boy eighteen months old. In this, an attempt to relieve the deformity had been made by a competent surgeon, when the child was a few months old, by the application of a simple apparatus secured by adhesive straps; that this treatment proved too severe was demonstrated by the fact that he was compelled to desist by the occurrence of convulsions.

I commenced treatment by dividing the "tendo achilles," "tibialis anticus," and "plantar fascia" of the right foot, and applying a modification of Icarpa's shoe, devised and used by the late Prof. Brainard, of Chicago. The leg strip at the ankle was made round or square of soft iron, and being bent to suit the deformity, and the foot properly adjusted, was again bent to the desired position. After an extended trial of this, and also of an apparatus made by Gaurig, of Philadelphia, selected, after a very extended examination of the different varieties to be found at the time in Chicago, St. Louis, Louisville, Cincinnati, Philadelphia, and New York, I still found I was making but little progress, as all were constructed upon the principle of securing the foot and leg in a fixed position which could be varied by the hand or a screw; and I invariably found the feet would not bear without ulceration the pressure necessary to bring them to their natural position. I had made several modifications of my own—had applied the rubber springs to movable joints,—when upon the appearance of Dr. L. A. Sayre's report to the American Medical Association, upon the treatment of club-foot, I added the ball and socket-joint at the tarso metatarsal articulation. I found I had an apparatus much superior to anything I had previously used, and with it I made much more satisfactory progress, and eventually succeeded in changing the shape and position of the foot, so that from resting upon the dorsal surface of the cuboid bone, he rested securely and walked upon the bottom of the feet which he could bring nearly straight; but from the paralyzed condition of the peroneal muscles, the toes were badly inverted in walking, and I have not been able to secure attention to a course of treatment to relieve this; yet the feet, from being tender and painful, have become much more tolerant of pressure. To secure this improvement, I have divided the "tendo achilles" of both feet three times; the "tibialis anticus plantar fascia" twice, at considerable intervals. I do not report this as one of striking or even entirely satisfactory success, but rather one that illustrates the difficulties to be overcome, and the improvement in apparatus made quite recently.

CASE II was one of incipient "genu varum," or bow-legs, in a girl aged twenty months. This child, although she had never been ill, was slender and delicate, did not walk until a year old, and it was some six months after when the difficulty was observed which caused her to walk awkwardly with the toes inverted. The difficulty seemed to exist chiefly below the knee, and was treated by a light strip of iron riveted to the sole of shoe, and passing up the inner side of leg to about three inches above the knee, with a joint to correspond with the knee joint, and a movable rosette pad to rest upon the tuberosity of the tibia. The shoe was properly laced, the upper part secured to the thigh, and a common elastic garter passed to the point of greatest curvature of the tibia, with a small splint on the outer side to receive the pressure. This simple apparatus, which did not annoy the child in the least, accomplished the desired object in a few weeks. To meet the indications, and prevent a return, syrup of phosphorus and lime was given.

CASE III.—A spontaneous sub-luxation of the knee-joint inwardly, in a woman aged sixty-five years, the gradual result of an injury. This case was treated upon the same principle as the last, with marked benefit; but the patient soon after left town, and the apparatus requiring some modification, I learn it has been discontinued.

CASE IV.—Antero posterior curvature of the spine. A healthy German girl, aged five years, received a fall, striking the end of a plank side walk over the second and third dorsal vertebra; she suffered a great deal of pain, was very restless, lost her appetite, had a wan, haggard appearance. A physician was consulted, but the real nature of the case was not recognized for six weeks, when a shoulder-brace was applied. Eight weeks from the reception of the injury I saw her; the general appearance was that of declining health and physical suffering; a prominence was readily recognized over the third dorsal vertebra, with tenderness on pressure, and from the mother's account, she was evidently growing worse. I examined the brace, but found little could be done with it; I recommended the child be encouraged to lie down as much as possible, and instructed the mother how to adjust the bed to secure most perfect rest, and desired the child should have a generous diet. I also suggested the propriety of procuring an apparatus, but as their circumstances would not permit, that was abandoned. In a short time I had the satisfaction of finding the disease checked, but, as they were not a family who would persist in a course of treatment, especially if it were only expected to ward off results, I soon lost sight of the case.

CASE V. was one of "morbus coxarius" in a boy aged fifteen years, who fell on the ice November 26th, 1865, striking on his right hip, hurting him quite severely, and causing a slight lameness from which he was never entirely free, but more than a year elapsed before it was severe enough to induce him to seek professional assistance. When a physician was consulted, February 1st, 1867, who, without seeing the case, advised rest, and tincture of iodine be applied, which mitigated the symptoms; but it continued swollen and moderately painful, gradually progressing, he becoming more helpless, until September, 1867, when he took cold by getting his feet wet, and his hip became inflamed, with severe pain in the hip and knee. In October, he was taken to an itinerant quack, whose method of healing was by "laying on of hands." He diagnosed the case correctly, but failed to exert sufficient power to reach it. In November, it was very much swollen and painful, but had not yet opened. A surgeon was consulted who proposed to excise the head of the femur, to which the family decidedly objected. He next passed into the hands of a "quack," who assured the friends the knee was dislocated, and attempted its reduction. He treated it some two months, during which time the disease made rapid progress, and when, after some time, it passed into the hands of the next attendant, the destruction of the joint was completed; the thigh being swollen to its fullest extent, skin shining, leg drawn up, flexed at the knee, and thigh thrown across its fellow at the opposite side. The abscess was punctured in May, 1868, discharging a large amount, and affording great relief. A slough, three by four inches, appeared over the great trochanter, leaving an unhealthy surface. Subsequently the limb again became very painful, distortion of the hip still more marked with an aggravation of all the symptoms; while the sufferings were so intense that most of the residents of two adjoining blocks were deprived of sleep by his outcries, notwithstanding the administration of narcotics in large doses, as I was assured he took tincture of opium in half-ounce doses several times daily, besides using three pounds of chloroform by inhalation within two weeks. In June, while in this condition, I was requested to see him, being informed his previous attendant had been dismissed. Upon calling at the house, I found the patient with the right leg drawn up, thrown across its fellow, the thigh very much swollen, with a granulated oval face, three by four inches, over the great trochanter, where a slough had taken place. The haggard appearance of the boy and the out-cry, which could be heard across the street, was sufficient indication of the intense agony he was enduring, which, I was informed, had been as severe for the past three weeks. The position and expression of the patient indicated at a glance the capsular ligament distended with pus. He implored me to do something to relieve his terrible sufferings, already endured so long; but upon inquiry, I found the physician in attendance had not been discharged, and that word had been sent from his office that he would call as soon as he returned. I informed them I could do nothing, and left. I was afterwards informed that in response to an urgent demand to have something done, he attempted and professed to open the joint, but there was no discharge or relief for three days, when the patient, in making pressure to promote a discharge, caused the ligament to give way, allowing the exit of a large quantity of fetid pus, which was followed by prompt relief, except the pain would return two or three times daily, continuing from half-an-hour to an hour. July 15th I was again called to attend him, and finding his previous attendant had been properly notified, I took charge of the case, found the condition much as above described, with four sinuses surrounding the ulcerated surface, with the leg at an angle of about sixty-five degrees to the thigh; and when I proposed to apply extension I was informed it had been tried and could not be borne. Upon further inquiry I was informed a half gallon of water in a jug had been suspended at the foot of the bed and attached to the patient's foot, producing intolerable suffering. By using a small quantity, gradually increased, and having it attached above the knee, and drawn nearly in the line of the femur as distorted, I found the spasmodic action gradually subsided, and the promotion of a free discharge relieved him almost entirely from pain; his appetite returned, strength increased, and in about six weeks he was able to ride out. Within four months the sinuses healed, leaving the knee and thigh contracted. Subsequently by division of the "sartorius-tensor vag femoris, pectineus and adductor muscles," also the inner and outer ham strings, this was very much relieved and the leg straightened at the knee. I made several attempts to apply Bauer's extension apparatus, with only partial success, as I found him very restive and impatient of more suffering, and having secured relief from that, and being able to move about freely, he was satisfied, although there was some three inches shortening from flexion of the spine, which might have been partially removed by persistent extension.

In June, 1868, I saw a case of ulceration of the ankle-joint, in a boy of five years, which was under the care of a practitioner in an adjoining county. It was successfully treated by an extension apparatus that enabled the patient to move about, and he made a good recovery, although the joint was open and very seriously diseased. I made repeated applications for notes of the case, but did not succeed in obtaining them, hence can furnish only this indifferent sketch.

Having thus briefly presented a case of the several classes of cases which have come under my notice, I will close with a few words upon the difficulties to be encountered in the treatment of deformities.

By the flourishing announcement of a few selected successful cases, and keeping remarkably quiet about those less fortunate, the impression has obtained in community, and to some extent among the profession, that an operation is to afford complete relief, while the truth is, success is much more dependent upon the subsequent treatment. Hence, no candid, honest physician is able to promise what patients are led to expect can be accomplished, and cases are either neglected or go into the hands of itinerant quacks, who readily promise all that is desired, trusting to their ability to leave before the patient is aware of their intention. Thus while the streets of our cities present many very interesting cases, amenable to treatment, there is no way for the honorable practitioner to get control of them (however much he might feel interested), upon such conditions as would enable him to treat them to advantage; and beside, cases in private practice cannot be controlled and nursed as they can in institutions devoted to that purpose. There also exists among the profession of this country a prejudice against the practice of specialties, while the history of the profession for the last fifty years shows that nearly all the important advances have been made by the cultivators of special branches of medical or surgical science; and while no competent physician would advocate specialties to the neglect of general practice, we do not see any impropriety in a man, who has become a qualified practitioner, giving more than usual attention to any class of diseases his tastes and qualifications incline him to, but not at the sacrifice of attention to general practice. I am aware the objection is made that such practice tends to quackery, but I think not necessarily so, and if it could be carried out in good faith, as in some European countries, we should make rapid advancement in this particular branch, as the Americans are proverbially an ingenious people. Let those who have the tact and patience qualify themselves by becoming thoroughly conversant with the subject, and let those who are not thus inclined, aid in diffusing correct information on this subject, and recommend those they come in contact with to apply for treatment, giving them to understand what they have a right to expect. If this generous course was pursued, many cases to be seen daily on our streets could be relieved, the practice of orthopedy would make rapid advancement, and quackery would find fewer victims.

TRAUMATIC TETANUS.

By A. E. DUNCAN, M. D.

This "notoriously fatal disease" is described by some as a disease in which there is a "permanent contraction of the muscles without periods of relaxation;" "attended with tension and rigidity of the parts affected."

Such statements are rather calculated to mislead the young practitioner in some cases instead of guiding him. And, again, the expression "locked jaw" is, in a few cases at least, calculated to deceive. There are cases having a fatal termination in which the jaw is not locked until the disease has made considerable progress. I was once personally known to a case of traumatic tetanus, in which the muscles of mastication and deglutition were not materially affected in the beginning of the disease, and the attending physician stubbornly contended that it was not a case of "locked-jaw." But at last he was compelled to surrender his opinion, and, about the fourth day from the first tetanoid spasm, see his patient die with the usual horrid symptoms of traumatic tetanus, caused by a punctured wound in the sole of the foot.

The severity of the disease will be measured by the extent of the muscular spasm and the rigidity of the same.

In the most aggregated form of the disease, there is scarcely a muscle of the entire body that is not more or less affected; and the most horrid contortions are produced. The sufferings are beyond description, of which the patient is entirely conscious; and in many cases there is no relief for the patient until relieved by death, which may take place in from a very few hours to several days.

There may be all grades of the disease, from the most severe to the mildest form, in which there are but very few muscles involved, and the tetanic spasm but slight and occurring at intervals of from a few minutes to several hours. The spasm is, as a rule, less severe and less frequent at night than during the day. A case may have its beginning in this mild form, and in a few days become of the most aggregated form and prove fatal. Hence the value of an early and correct diagnosis.

The punctured wound seems to be the most favorable to the production of tetanus, and the incised wound least so. Of the latter, and the various other wounds, there is usually an indurated condition, somewhat resembling the punctured wound in connection with the production of tetanus.

Symptoms.—The first symptom is the hyperæsthetic condition of the afferent nerves about the affected part,—pain, heat, and sometimes redness and swelling, together with an inflamed condition of one or more nervous branches leading from the wound. These should be properly styled the premonitory symptoms, for they may all be present and tetanus not follow; but when it does, the physician and friends of the unfortunate patient should have been forewarned by them.

The tetanic symptoms proper are muscular spasm, with rigidity of the same, severe pain in connection with the wound and muscles affected, and in proportion to the severity of the disease. The patient is always conscious of things in general as well as of his sufferings. When we have the tetanic symptoms proper associated with the premonitory symptoms as above described, we may feel safe in diagnosing the case one of *traumatic tetanus*.

Prognosis.—With our present knowledge and ill-success in the treatment of traumatic tetanus, a favorable prognosis could not be given, but more or less unfavorable, in proportion to the severity and rapid progress of the disease.

Cause.—It is undoubted that traumatic tetanus is caused by a wound; but why one wound produces the disease and another does not, may not be so readily demonstrated. By a careful comparison of a number of cases, there will be found to be a similarity in the condition of the wound in the various cases, namely, a hyperæsthetic condition of the afferent nerves about the part; and if the wound is a lacerated, incised, gun-shot, or ulcerated wound, the natural secretion of the wound has become arrested, followed by an induration, closely allied to the punctured wound, in which the dead or partially destroyed tissue can not make its escape, and there remains, diffused within the living tissue, soon to produce the local hyperæsthesia and inflamed nervous branch, which may be regarded as the direct cause of traumatic tetanus.

If we are correct in regard to the real cause of tetanus, the rational treatment would be, first, to adopt such measures as would tend to prevent the premonitory symptoms, by making a free incision through punctured wounds, and by restoring the normal secretions of other wounds and relieving the induration and hyperæsthesia. Apply tepid water dressing as may be demanded to preserve the normal temperature as near as can be. The thermometer is the reliable guide. The tests should be made between the affected part and corresponding side or extremity. Perhaps there is no one agent of so much value in controlling the tetanic spasm as chloroform.

A CASE.—March 8th, 1872, was called to Josie D——, age nine years,—a healthy child of rather a nervous diathesis. Patient had a slight tetanic spasm at 7 A. M., with the premonitory symptoms as above described. Twenty-six hours prior to the first spasm, the patient had received a punctured wound in the sole of the foot, from a threaded needle; the needle passing over half through the foot, just behind the articulation of the metatarsal and first phalanx of the little toe of the right foot. There was a well marked red line, some four inches in length, on the top of the foot, marking the course of the inflamed nervous branch. I made a free incision through the punctured wound; directed an emollient dressing, for the entire foot, of bread and milk and water, to be frequently changed; and prescribed chloral hydrate every hour. Left the patient with instruction to inform me at once if another spasm occurred.

At 8½ o'clock, another spasm returned with increased severity and duration; the spasm returned about every hour and a half. Used chloroform by inhalation freely; continued chloral hydrate between the spasms. From 3½ P. M. to 7½ P. M. the increasing and continued spasm was only held in check by the use of chloroform. From 8 P. M. to 7 A. M. March 9th, the positive tetanic symptoms were only slight. During the night, continued chloral hydrate p. r. n. and sul. quinine.

During March 9th, the patient was in every way about the same as the day preceding; the severity of the paroxysms were, perhaps, a little more readily controlled by the use of chloroform. Treatment continued, with the addition of bromide of potash combined with the chloral, and the use of resin cerate applied along the course of the inflamed nerve; used enema to produce defecation.

March 10th, patient quite prostrate; has taken no nourishment for more than two days—directed oyster soup. General improvement in the condition of the patient. At 9 A. M., tetanic spasm returned, but with less severity. Kept the patient well under the influence of the chloral; resorted to the use of chloroform at the slightest approach of the spasm

March 11th, patient quite comfortable, and entirely free from spasm or rigidity of the muscles.

During the entire course of the disease, the muscles of the right side were more affected than those of the left side, except the muscles of the face which were about equally affected on both sides.

March 12th. From this date the little patient made rapid improvement, and was soon quite well.

NOTE

Regarding a case of regeneration of the nerves of the arm following their destruction to an extent of five centimeters; remarkable physiological phenomena. Serious consequences from a medico-legal point of view.

By Dr. Notta. *chirurgien de l'hopital de Liseaux, etc.*

Tr nslated from the *Archives Generales*, by Thomas C. Minor, M. D.

I shall commence this note by reporting in all its details the case which is the subject of it; then I shall return to the different particularities that it presents, and shall then endeavor to show its importance.

OBSERVATION.—Legrip, workwoman in a factory, aged 19 years, entered the hospital of Liseaux the 6th of August, 1867. At the close of the day, while working over a machine, her left arm was caught by the hopper. Dr. Vauquelin, called in at the time of the accident, finding the injury very serious, had the woman carried to my *service*, and the next day we together determined the condition of the wound.

At six centimeters above the bend of the elbow, the arm presented a circular destruction of all the soft parts as far as the bone, except at the anterior and external side, where the muscular tissue and the skin had been preserved to a breadth of about three centimetres.

This part included the long portion of the biceps which had been almost entirely respected; the humerus was denuded of its periosteum at its internal portion. The two flaps of this great wound are perpendicular to the axis of the arm, and were distant from each other as far as the bone, about the space of four centimeters; they were cut and contused. Complete absence of radial and cubital pulse.

All the part of the arm situated below the wound, the fore-arm and the hand, was insensible to pinching and touch; marked coldness of these parts and a slightly violet tinge of the fingers. The forearm could be flexed upon the arm, but the wrist and fingers could not execute any movements. In presence of these lesions, I informed the nurse that hemorrhage might come on, and told her what it would be necessary to do during the time that would elapse before I could reach the patient.. I abstained from searching for the arterial extremities, convinced that in a short time mortification of the limb would oblige me to perform an amputation; however, I made them wrap flannel around the limb, and also put bottles of hot water about it, first filling the wound with charpes steeped in alcohol.

Under the influence of this dressing, the wound was deterged, filled up with granulations, and she left the hospital on the road to convalescence, the 31st of August; fifteen days afterward cicatrization was complete.

In the month of November, the forearm and hand became wasted and atrophied. The fingers were useless and numb; on touching the hand, a very marked cold sensation was given, if we compared it to the temperature that the right hand gave; tactile sensibility was null; the patient could not recognize the nature of objects—she felt that she touched something, but without being able to say what it was; she was very sensible to cold and always kept her hand enveloped in woolen.

At the commencement of June, 1868,—that is to say ten months after the accident—the cicatrix, which included two-thirds the circumference of the arm, was strongly depressed. The condition was nearly the same as in the month of November. The muscles of the forearm had undergone a manifest atrophy. The extensors of the fingers were completely paralyzed; the fingers were flexed in the hand; the flexor muscles impressed them with some slight movements at least. There was, besides, an extreme exaggeration of the sensibility of the hand and of the whole forearm, which increased under the influence of cold and the variations of temperature. Tactile sensations were not perceived. This condition persisted without appreciable amelioration during the summer and winter that followed; it was only in the springtime of 1869, in March and April,—that is to say twenty months after the accident—that the hand became less sensible to cold, and that little by little movement and sensibility re-appeared in the fingers. The amelioration continued its progressive march the months following, and to-day, the 24th of September, 1869, the tactile sensibility and the sensations of pain are as pronounced as in the right arm.

Movements of flexion and extension have completely returned, except in the little finger, though they are less extensive. The forearm has resumed its strength, and is almost as developed as the other. The cicatrix on the arm is no longer depressed as at first—there is, at least, only a slight depression; it has the aspect of a circular ribbon of from one to two centimetres in width, commencing at the internal side of the biceps, and terminating at the external side of that muscle. The interval of healthy skin, which exists between the two extremities of the cicatrix, is about five centimetres. In exploring the internal border of the biceps, we find the arterial beatings over the course of the humeral artery; these pulsations are more feeble than those of the right arm. The radial pulse has returned, but is likewise more feeble. To the touch, the arm gives a more decided sensation of cold than the opposite side. There is still sensibility to cold and to the variations of temperature, but much less pronounced than previously. Since: I have again seen this woman; the hand and the arm no longer present any difference from those of the opposite side.

We see in this observation that a young girl of 19 years has had all the soft parts of the arm, with the exception of the long portion of the biceps, crushed by a machine to the depth of four centimetres; now, in adding four or five millimetres for the contused part of each of these lips of the wound, which have been eliminated by suppuration, we come to a loss of substance of five centimetres, including, besides the skin and muscles, the humeral artery and all the nerves of the arm. At first glance, one would have been led to fear that mortification of the forearm and the necessity of amputation; but these apprehensions disappeared very soon under the influence of an alcoholic dressing in less than six weeks, and this horrible wound cicatrized without presenting any complication. Thanks for the preservation of the long portion of the biceps, the movements of flexion of the forearm were preserved; but, as it had been easy to foresee and determine the first day, all the muscles of the forearm and hand were completely paralyzed; at the same time, there was complete loss of sensibility in all the portion of the arm situated below the wound. Now, as in their experiences, Messrs. Philipeaux and Vulpian have seen the filling up over the tract of nerves, the loss of substance being from four to five and sometimes six centimetres in width, I was not wholly reassured as to the future which was in reserve for my patient. From thence, in their experience, the nerve was extracted from its sheath, and removed for a determined length, but its sheath still served, if I may thus express myself, as a conductor for the plastic productions which were organized ulteriorly into nervous tissue; while that, in my patient, I had a large gaping wound, which suppurated, and in which it was impossible for me to place in juxtaposition the extremities of the nervous cords themselves. In the first part of the healing process, the cicatrix formed a considerable circular depression which would almost admit the index finger; little by little this depression was effaced, and to-day it no longer exists. Besides, if we consult the majority of treatises on surgery, we will see that when the loss of substance of a nerve passes twenty or thirty millimetres, only a few admit the possibility of the re establishment of innervation.

My fears were as much more legitimate when, at the commencement of June, 1868,—that is to say ten months after the accident—the muscles of the forearm underwent a manifest atrophy, the extensors of the fingers being completely paralyzed; the flexor muscles impressed at least some slight movements to the fingers flexed in the hand; there was hyperæsthesia of the hand and of all the forearm, which was increased under the influence of cold and the variations of temperature. Tactile sensibility had not returned. This condition was not complete paralysis, absolutely, in the first days, but it differed but little from it, and there was reason to believe that after such a considerable lapse of time, there was no more very notable amelioration to hope for, since, in all cases, it was very probable that the patient would never recover the integrity of all the movements of the hand or of all its functions.

It was then I proved, in a certificate, which served as testimony before a court, judged and appealed, and finally settled by giving the woman an indemnity, fixed at five thousand francs, for the insufficiency of precaution taken by the proprietor of the factory. The condition of the limb did not make a very sensible progress during the fall and winter following. It was only when spring came on,—that is to say twenty months after the accident,—that the hand and arm became less sensible to cold, and that little by little movement and tactile sensibility reappeared. We saw at the same time the atrophy of the arm disappear, and after a little more than two years, innervation was completely re-established, and the functions of the limb like unto that of the opposite side.

This fact shows us what must be the caution of a physician consulted by justice in similar cases. He must, evidently, only give his judgment in an absolute manner after a lapse of time much longer than is generally supposed.

There exist in the science incontestable cases which show the re-establishment of innervation after a more or less extensive resection of a nervous trunk. M. Paulet,* in a very interesting memoir, has collected eighteen cases that he recapitulates thus: "In all these observations, the functions were re-established, sometimes at the end of a very short time; at other times, after several months, it is true, but from that time the loss of substance of the nervous trunk equalled three or four pouces (pouce equalling $\frac{1}{8}$ of an inch), which excludes all possibility of restoration after the laws laid down by physiology; finally, in certain cases, the resection of an important nerve has disturbed not the sensibility, neither the voluntary movement."

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* Etudes sur les suites des lesions traumatiques des nerfs. Mem. Soc. de chir. Vol VII. p. 202.

In these cases, the explanation of the return of function embarassed M. Paulet. If the re-establishment of innervation can explain itself by the restoration of continuity of the nerve in certain cases, in other cases it is necessary to invoke other things and return to the ancient theory of anostomosis, a theory which is far from being satisfactory. Now, in spite of the reasons that he gives, in spite of the numerous experiments performed for the purpose of elucidating this question, he was obliged to avow that it could not be settled in the actual condition of the science.

My observation differs essentially from those which have been reported by Paulet; in fact, in all these cases, the resection has never shown only upon one or upon two nerves of a limb; in our patient, on the contrary, all the nerves of the arm, without exception, were destroyed in such a way that we cannot call in the theory of anostomosis for the explanation of the re-establishment of the function; and, inasmuch as the distance, which separates the nervous extremities, excludes, after the laws laid down by physiology, the possibility of a restoration of continuity of the nerve, it is necessary, nevertheless, to admit it, and to conclude that these laws are not absolute, and that there are, perhaps, ways of reviving them in certain cases. However, we must make the remark here, that the separation of the two lips of the wound has, perhaps, been increased by the nature of the loss of substance, which included all the circumference of the arm up to the bone, less the long portion of the biceps, in a way that the retraction of the soft parts was not at all limited by the adjoining tissues. In the same way, the cicatrix, in retracting, has, perhaps, acted energetically upon the two lips of the wound and brought them together slowly, it is true, but sufficiently to permit the prolongations of the nervous extremities to unite.

Whatever it may be, we believe ourselves able to conclude from the preceding analysis that a separation of five centimetres between the two ends of the nerves is not fatally opposed to the regeneration of this nerve and to the return of innervation; also at the same time that the wound suppurates and is only cicatrized by second intention, and that in these cases one cannot decide definitely as to the re-establishment of the functions which depend upon the injured nerves only after a lapse of time which cannot be less than two years.

PUNCTURED WOUND.

By H. G. McAllister, M. D., of Cincinnati, Ohio.

J. H., æt. 22 years, received a stab with a sharp-pointed instrument in right lateral thoracic region, between the fourth and fifth ribs, and on a line extending from axilla to anterior sup. spinous process of illium; the wound was a puncture about two inches deep as near as could be ascertained. I first saw him June 30th, six hours after time of receiving injury; I found him suffering with all the symptoms of shock, and the blood on his clothes showed at a glance that there had been considerable hemorrhage, and, upon examination, found one of the superficial intercostal arteries had been cut—and was still bleeding,—which yielded to torsion. As patient had been lying on affected side, the blood had escaped externally, but with no symptoms indicating that blood had entered the pleural cavity; accordingly, I closed up the wound with adhesive strips, and applied a bandage; ordered a saline cathartic.

Three hours later, I found pulse 115 per minute, with symptoms of irritative fever for which I ordered the following:

℞	Antimon. et potassa tart.	gr. j.
	Liq. ammoniæ act.	ʒ ij.

S. ʒ j. to be given every three hours.

Saw him again in twelve hours; found pulse nearly normal; patient sleeping quietly. When roused, said he felt no pain anywhere, excepting in the mouth, which I found to be severely ptyalized. As I had given him nothing to excite the secretion, I inferred it was spontaneous, and treated it with laxatives and a wash of chlo. potassa, tincture opium and water, which did not give much relief. It seemed to resist all treatment until I ordered a few drops of carbolic acid to be added to the above solution, which gradually healed the ulcers.

There were no symptoms of inflammation of pleura, though the wound penetrated in. The patient recovered so as to be able to walk around in nine days from the time of receiving the injury. Why there was no inflammation of pleura, which is usually severe in such cases, and why there was severe ptyalism, are questions of interest, etiologically and pathologically. Whether the ptyalism was spontaneous or caused by irritation at the seat of the wound, or dependent upon mental derangement, are points equally interesting. I think the last most plausible, as he suffered extremely from mental despondency during his illness.

COTTON WOOL AS A SURGICAL DRESSING.

WM. WARREN GREENE, M. D., Professor of Surgery in the Medical School of Maine, writes to the Boston *Medical and Surgical Journal:*

For at least five years past I have used the cotton wool almost exclusively as a dressing for wounds where I desired or expected union by "first intention," and for two years past have, to a great extent, substituted it for the carbolic acid dressings in the treatment of abscesses and suppurating surfaces. So gratifying and satisfactory, to my own mind, have been the results, that I am inclined to make a simple statement of facts for the benefit of the profession.

It is very likely that the use of this article is more common with surgeons than I am aware, but that it is not extensively employed, except for burns and scalds, I infer from the absence of any notice of it in the books or journals, and from the fact that among my acquaintances I know only three who had employed it to any extent, until I brought it to their notice. Of these, all had employed it for its elasticity and lightness.

To Prof. Robinson, of this city, I am indebted for the suggestion of the employment of the particular form which I find preferable to all others, the "French wadding," which is made of the purest cotton, is thick, very soft and elastic, slightly glazed on the one side, and on the other presents a beautiful, soft, fleecy surface. Dr. Robinson has used it many years "for its lightness and elasticity," with the same results as I have observed in securing union by first intention. Dr. Tewksbury, of this city, and Dr. Fuller, of Bath, have both employed it for the same reasons, and with the same results.

After quite an extended observation of its merits as a light, neat, elastic dressing, simple and easy of application, and especially agreeable to the patient as compared with other appliances, and finding that, apparently, the healing process under its influence was remarkably rapid and favorable, it occurred to me that there must be some other quality operating than those mentioned, which contributed to the, sometimes, wonderful results; and I had only to refer to the experiments of Pastein and a host of others upon the vexed question of spontaneous generation, to infer that its capabilities of filtering the air of all spores or germs might, or even must be one of the main reasons why wounds thus dressed were so free from inflammatory or suppurative action.

With this view, I have extended its use to the treatment of abscesses and suppurating surfaces, as well as to that of simple incised wounds.

In the case of ordinary wounds, either accidental or resulting from surgical operations, I have, in the last five years, rarely seen one that did not unite by first intention, excepting, of course, in the track of ligatures. A few cases in illustration will suffice. At my clinic, in the Medical School of Maine, last spring, I amputated the thigh, at the middle, by the circular operation, and the wound, dressed with the simple cotton compress, united at every point by first intention, except in the track of the ligatures. It is hardly necessary to say that this exception obtains in every case. In ten ovariotomies, I have dressed the abdominal wound in this manner, and in every instance the union has been perfect without any suppuration.

In a case of morbid growth (epithelioma), where, with the assistance of Drs Wood and Diana, I made a very deep dissection of the external genitals of a female, removing a large amount of tissue, and leaving a very deep and extensive wound, under the cotton compress, firmly applied, perfect union occurred, without a drop of pus, within the week. In the case o. a mammary tumor, weighing five pounds, removed in the presence of Drs. Robinson, Gerrish, and others, the same result occurred.

I removed a fatty tumor from a young man's shoulder, which weighed four pounds, dressed it in the same way, and in four days the wound was entirely healed.

I assisted Dr. Tewksbury in amputating a thigh at the junction of lower and middle third, in which he made the antero-posterior flaps by transfixion, and dressed with cotton wool; union by first intention sealed the surfaces everywhere, except in the track of the ligatures.

I have recently made a series of seven plastic operations upon one patient for the restoration of the nose, lips, and part of one cheek, a case which most of the surgeons of Portland have seen, and which I exhibited to my class last spring, and under the same simple dressing every line of incision, after each operation, has healed by first intention.

I merely give these cases as illustrations of what is the result in my own, and, so far as I know, in the practice of others, who use the same dressing. Of course, under any plan of treatment not positively harmful, *exceptional* results happen that are equally good. But from what I may safely call an ample experience, I have never seen any management under which wounds heal so rapidly and with such freedom from inflammation or suppuration as this.

I feel very sure that any surgeon, having once given it a fair trial, selecting a pure, nice article of wadding, will never use any other dressing for simple incised wounds; and while I attribute much to the lightness and *elasticity* of the material, through which we secure, with comfort to the patient, equable, elastic pressure over the entire surface, I am inclined to attach great importance to its action as a filter. Certainly, this must be true, if the importance of atmospheric germs as exciting causes of inflammatory and suppurating processes is properly estimated by the profession at the present time.

Then why not carry its use further, and apply it to the treatment of abscesses and suppurating surfaces?

I desire here to call attention to a very important fact, and to this point the attention of Dr. Gerrish, a most careful observer, who was my assistant for a year and a half, as well as my own, has been specially directed. In all the cases of recent wounds dressed with cotton wool, when the compress was so carefully applied as to exclude air around the edges, whether the wounds were closed or open, incised or lacerated, we have never seen a drop of pus upon raising the compress the first time. When oozing has occurred, we have found the cotton coated with dried blood and lymph, but *no pus.*

DARWINISM IN REFERENCE TO THE EYES OF ANIMALS.

Dr. B. Joy Jeffries made a brief verbal communication on the unity of design in the eyes of man and the lower animals.

In the Harvard University Course of Lectures on the "Anatomy and Physiology of Vision," which I am now delivering at Cambridge, I have had occasion to especially study the unity of design in the visual organs of man and other animals, and by means of my pictures and diagrams I trust to make this evident to the Society. As every illuminated point in nature sends out rays of light in all directions, we have only diverging rays, or those which, so far as the eye is concerned, are practically parallel. There is needed a refractive medium, therefore, to bring such rays to a focus on the recipient surface, where the stimulus of light finally causes nerve stimulation, sending the sensation of light, through an optic nerve, to the brain or its representative

We may take the human eye as the highest type, and here we have refracting media; namely, the convex cornea and double convex crystalline lens behind it, by means of which diverging or parallel rays of light are focussed on the recipient surface or retina, which lines the interior of the eye-ball behind. Thus is formed what exactly corresponds to a *camera obscura.* We have refracting media in whose focus or in the plane of whose focus, is placed a recipient surface, which recipient surface or membrane, or retina, contains the means or apparatus for causing the stimulus of light to give rise to a nerve sensation to be transmitted to the brain. Now all eyes, no matter what their external shape or appearance, if they answer these postulates, may, of course, be ranked together as constructed on one design or plan. If we follow down the series of vertebrates, we shall find these eyes all formed on this principle of the camera obscura. So also in the *simple* or *additional* eyes of the rest of the animal kingdom, we shall find a refractive apparatus, in the plane of whose focus is a recipient membrane or retina. And this notwithstanding any difference in shape, size, or general appearance of the vertebrate eye, or the simplicity of these so-called additional eyes of the insects. The only other form of eye existing in the animal series is the *compound* or *facetted* eye of the insects and articulates. The common cornea of this eye is divided up into a large number of distinct facets (five to thirty thousand), each one corresponding to a tube or pigment, so to speak, in which is found the final termination of the optic nerve fibre. The ray of light which enters through any one of the transparent facets can only effect the optic nerve fibre termination corresponding to it. Hence naturalists and philosophers seemed forced to accord to this form of visual apparatus a different method of perceiving light from that which prevails with the eyes formed on the principle of the camera obscura. Johannes Muller's dictum, more than anything else, seemed to render this an accepted truth. Long ago, however, the strangeness was pointed out of an animal having eyes near each other, whose methods of receiving and perceiving light were on two entirely different plans. Mr. Darwin saw at once this would militate against his theory, and comparatively recent research shows that it is not true. These compound or facetted eyes are also now found to have a refracting medium, in the plane of whose focus is a recipient surface corresponding to a retina. Each one of these facets is in reality a convex lens, and, as an old anatomist said, "if we look at a man through these we shall see a whole army of dwarfs." There is, then, a picture formed behind them, just as there is a picture formed on the retina in the vertebrate eye. Moreover, behind each facet there is a refracting body which we will call the vitreous cone, and however its shape and appearance may vary in insects and crustaceans, yet its purpose remains the same; namely, that of refracting the light, and together with the convex facet focussing it on the terminal end of the optic nerve fibre behind, and in contact with the vitreous cone. Here, then, the stimulus of light produces excitation of a nerve to carry sensation to the brain or its representative. The facet may represent the human cornea, the refracting vitreous cone next behind it, the crystalline lens, and if we should push back the final optic nerve termini, by the interposition of a vitreous humor, the very shape would then resemble the vertebrate type. Thus, we find unity of design in all eyes, vertebrate, simple and compound. The question naturally arises, how can the insect see things singly if thousands of pictures of the same thing are perceived. The answer is that a single fibre supplies many facets. Moreover, eyes seemingly facetted or compound, are, on examination, found to be groups of simple eyes close together. No objection has been made to an animal's seeing singly with several simple eyes when these are closely grouped, or to man's single vision with two eyes. A multiplied picture does not go as such to the brain.

Now then, where does light become turned into nerve stimulation. This takes place in the retina, for the optic nerve itself is insensible to light, and where it enters the eye-ball is a blind spot in our field of vision. The retina is by no means simply a membranous expansion of nerve substance, but a most complicated structure. Without dwelling upon the arguments in proof, I would simply say that its outer layer contains alone the percipient elements, called from their shape the rods and cones. These stand crowded together, after the manner of a mosaic, at right angles to the black pigmented surface against which they lie, or rather in which they are bedded. The outer portion of these wonderfully minute little rods and cones is now found to be composed of a pile of plates of a refracting material separated by a less refractive intermediate substance, like a pile of glass plates separated by air. In contact with these come the ultimate fibrillæ of the optic nerve fibres, and in some way the action of the light streaming through this pile of plates stimulates the nerve to a sensation of light to go to the brain. This plated or layered structure of the rods and cones is universal in the vertebrate eye. The portions of the compound or facetted eye which corresponds to the rods and cones, is the nerve substance or its representative, behind the vitreous cone in the pigmented tube, and here, also, this plate structure has been found in the insects and crustaceans. Thus, then, not only are all eyes so formed as to be adapted to the same laws of light, in having refracting media, in the plane of whose focus a recipient organ turns light into nerve sensation, but the *percipient elements* of this receptive organ, the retina, are also the same, perfectly establishing the unity of design in all visual organs of men and lower animals.—*Proceedings of the Boston Society of Natural History*, 1871.

A FEW REMARKS ON CHOREA SANCTI VITI.

By Edward Montgomery, M. D., St. Louis.

Chorea Sancti Viti, Epilepsia Saltatoria, Choreumania, Saint Vitus's Dance, are the different names by which this singularly interesting disease is designated. It is quite common in St. Louis; indeed, it would appear that it is more prevalent there than in any other city of the United States; for whilst Drs. Meigs and Pepper, in their late work on the Diseases of Children, state that they have met with but nine cases in Philadelphia for over twenty years, the writer of this communication has treated over forty cases during that time. I cannot account with any degree of confidence for this "insanity of the muscles" being so common here, but am of opinion that it depends on the indolent, sedentary, and imprisoned conditions of the youths; for besides the large numbers congregated in our public schools, nunneries, and convents, the children of this great and rapidly growing city are very much confined within doors, and but seldom enjoy the healthful exercise and salubrious air of the open country. There is little doubt but that the overcrowding in our schools, the indolent and sedentary lives of the majority of our children, and their want of appetite and consequent anemic condition, are very prolific causes of this affection.

Inanition, an exalted nervous sensibility, worms, *suppressio mensium*, dysmenorrhœa, pregnancy, a fright, a fall or blow on the head, the healing up of old ulcers, acute rheumatism, cardiac disease, imitation, etc., are all said to be exciting causes. I have seen several cases occurring during pregnancy; and I distinctly remember three cases which I treated for attacks of chorea when little girls of eight or ten years of age, who had kept free from the disease and enjoyed good health until they married, when, being in the third or fourth month of uterogestation, the malady reappeared, and in one case the disease has returned during the early months of each pregnancy for three times; this lady is now about twenty-seven years of age, and enjoys fair health, although she is what is called a very nervous and impressible person.

All nervous children, or indeed all who are weak, irritable, or from any cause very susceptible, should be excluded from the society of those laboring under the disease, as I have witnessed many cases very clearly induced by imitation.

That there is some very close connection between chorea and acute rheumatism is very probable, from the fact that many cases occur either immediately before or soon after an attack of the latter disease. Vogel remarks that although chorea may succeed acute rheumatism, the frequency of the occurrence has been much overrated; and goes on to say that if chorea depended on the rheumatic diathesis, then we ought to have more cases of acute rheumatism in girls than in boys, the reverse of which, he thinks, is the case. But, in our experience, acute rheumatism is really more frequently observed in girls than in boys, and hence coincides with the other fact, that girls are more frequently found with chorea than are boys. The altered condition of the blood and the cardiac complications in acute rheumatism also suggest the great probability of the near relation as to cause and effect of these two diseases. The only fatal case of chorea I ever saw was that of a young woman, aged seventeen years, who was attacked with the disease immediately after having suffered from a two-months' confinement with acute rheumatism. This patient had not been scientifically or indeed in any manner judiciously treated for the rheumatism, and, besides, the hygienic surroundings were very indifferent.

According to Meigs and Pepper, after a very complete and careful examination of a great number of authorities, the principal anatomical lesions are, morbid conditions of the endocardium, congestion or softening of the brain and spinal cord, opacity or serous effusion of the membranes (spinal and cerebral), embolism, granular exudation, etc. Whilst there are many cases probably due to ænemia and impaired nutrition, or to an altered condition of the blood, and to reflex irritation where no appreciable anatomical lesions are found.

The causes of the disease being so various, our treatment should also vary in different cases so as to adapt our remedies to the modification or removal of the predisposing and exciting causes of each particular case. When the disease depends on ænemia, mal-nutrition, or an altered condition of the blood, favorable hygienic measures, with tonic medicaments, are indicated. In these forms of the disease, strychnine, quinine, arsenic, zinc, iron, etc, are the medicines from which most good is to be expected. The following is a favorite prescription of mine in these cases:

℞ Strychniæ, gr. i
Quininæ Sulph., ʒ i.
Acidi Phosphorici Dilut., fl ℥ i.
Aq. Menth. Virid., fl ℥ vi.
Tinct. Cardam. Comp., fl ℥ i. Misce.

Sig. A teaspoonful three times a day for a child 8 or 9 years of age.

The citrate of iron and quinine, or Fowler's solution of arsenic with the tincture of cimicifuga racemosa, are remedies well adapted to this form of the disease.

When there is exalted nervous sensibility or hyperæsthesia, musk, assafœtida, castor, valerian, zinc, etc., will be found of essential service. A very good prescription is the following:

℞ Moschi. gr. xii.
Zinci Oxidi., gr. xxiv.
Sacchari. ʒ i. Misce.
Divide in chart. No. xii.

S. One powder three times a day for a child aged 8 or 9 years.

The only objection to the above is the expensiveness of the musk.

Another very excellent compound in these cases is this:

℞ Zinci Sulphatis. gr. xxx.
Ext. Valerian. (fluid) fl ℥ i.
Syrup Limonis. fl ℥ iii. Misce.

Sig. A teaspoonful three times a day, gradually increasing the dose.

I have found this prescription act most happily and promptly, stopping the choreic movements in a few days. To a watery solution of the sulphate of zinc may be added the tincture of castor, musk, cimicifuga; or any of these tinctures may be added to Fowler's solution, or the fluid extract of valerian, and it is well to have a variety of forms so as to administer that combination which is most grateful and most efficacious to the patient. If pills can be swallowed, zinc and asafœtida can be given in that form with very flattering prospects of success. We have very great faith in the efficacy of zinc in a great many cases of chorea; either the oxide or the sulphate will answer; we should gradually and steadily increase the dose, and keep giving the medicine until the desired results are obtained. We have such a confidence in the efficacy of zinc in the great majority of these cases, and we have had such remarkable success with it, that we consider it almost a specific; a great many years ago we cured a young women aged twenty-three, who had been constantly suffering with the disease for ten years; in this case, besides the zinc, we prescribed the strychnine and quinine mixture; and also gave Vallet's carbonate of iron pills freely. It is important to pay attention to the bowels; when sluggish or torpid, the following prescription will be found particularly appropriate in this, as in many other diseases attacking patients of weakly or nervous constitutions:

℞ Ext Belladonnæ, gr. ii.
Ext. Nucis Vomicæ. gr. iv.
Ferri Sulph., Exsicat. ʒ ss.
Pulv. Aloes Soc. ℈ ii.

Sig. Mix and divide into twenty pills, and give one night and morning, or one every night, as the case may require, until the bowels become perfectly regular.

We can confidently recommend the above pills in cases of chronic constipation; by taking one every night and morning for a short time, then one pill a day for a few days, then one pill every two or three days, in a few weeks the medicine can be dispensed with entirely. If the patient cannot swallow pills, the following may be substituted for them:

℞ Ferri Citratis. ʒ i.
Tinct. Belladonnæ. fl ʒ i.
Tinct. Nucis Vomicæ, fl ʒ ii.
Tinct. Aloes. fl ℥ ii.
Syrupi Limonis, fl ʒ xiii.

Sig. Mix and give a teaspoonful, or more, according to age, every day, or more frequently if necessary.

This formula for an aperient mixture we have found a very excellent one; it does not nauseate or sicken the patient, but on the contrary gives tone and energy to the digestive organs, and removes the tendency to returning constipation, thereby obviating the necessity of giving frequent purgatives.

If we suspect endocardial disease, embolism, arachnoid effusion, or softening of the nervous centres. we may not be able to accomplish much with medicines. but even in these cases we would urge the employment of the iodide or bromide of potassium, carbonate or hydrochlorate of ammonia, etc. The most favorable hygienic conditions are necessary in these cases.—*N. W. Med. and Surg. Journal.*

IMPACTED RECTUM IN A CHILD SIX YEARS OLD.

Dr. S. C. Busey reported the following case, in the *National Medical Journal:*

On the 8th of October, 1870, two girls, aged respectively eleven and six years, ate plentifully of a small grape, known as the chicken grape. The next day both complained of pain at stool. and the mother administered to each a dose of castor oil. Upon the elder it acted freely, and brought away a large quantity of the seeds and skins of the grapes. The younger continued to suffer severe pain at stool, and at every effort a few seeds and skins were discharged. On the morning of the 10th, I was called to see her. Found her playing with other children, free from pain except at stool; appetite as usual, tongue clean, no fever, no tenderness about the abdomen, no swelling, nor any hardness about the belly. Around the anus, especially about the coccyx, there was great tenderness. The mother said the child screamed with pain at stool. At every effort some fæcal matter passed, and that during each effort a hard mass of grape seeds and skins came to the verge of the anus, and immediately receded upon the subsidence of the pain and straining effort. I could not induce the child to make an effort at stool, though they occurred involuntarily hourly. Ordered the oil to be repeated, injections of tepid water per anum, and directed the mother to watch for protruding mass, and to seize it while the child was at stool, and, if necessary, to employ the handle of a spoon to disengage the mass. In the afternoon she reported that she had succeeded in taking away about a tablespoonful of the mass, and that a small quantity of fæcal matter had passed. The expectant plan of treatment was continued until the morning of the 12th without any abatement of the pain at stool, and without producing a free evacuation of the bowels. At my visit this morning the child had voluntarily returned to bed after a small breakfast; was slightly febrile; tongue slightly coated white, and somewhat reddened at the tip; slight tenderness along the course of the transverse colon was detected on pressure, and there were slight paroxysms of pain during the intervals of the efforts at stool. Feeling that further delay was hazardous, I introduced a bullet pointed probe through the anus, and felt distinctly, an inch and a half within, a hard, firm, unyielding mass. Passing my little finger, I felt the same mass, measuring about an inch and a half in diameter, and proceeded immediately, the left little finger being introduced into the rectum, with the aid of the spoon-pointed director (usually found in pocket cases), to extract the contents. During the succeeding half-hour, I drew out, in broken masses, a pint of grape seeds and skins, unmixed with fæcal matter, and apparently unaffected by the digestive process. During the operation, the sphincter relaxed completely, about a drachm of blood oozed away, and much pain was occasioned the child She was put to bed, a small dose of oil administered; and, with a view to wash away any remaining seeds and skin, to arrest any hemorrhage, and to abate any tendency to inflammation, occasional enemas of water, at ordinary temperature, were ordered. During the afternoon, the child had a free evacuation, and arose from bed to play with other children. She has continued perfectly well since.

The points of interest presented by this brief report consist—

1. In showing the extent of impaction to which the rectum may be subjected without producing any alarming or severe symptoms, and the length of time it will tolerate such impaction without the supervention of inflammation.

2. The value of the voluntary effort at stool, which enabled the elder to disengage a mass equally firm, and perhaps larger, of the same materials.

3. The indigestible nature of the materials ingested, and, consequently, showing the extent of toleration, by the digestive tube, of a mass of indigestible material without discomfort.

4. The folly of tentative treatment when the condition is recognized, and the importance of rectal examination, especially in children, when constipation follows the ingestion of indigestible substances.

The fæcal matter represented to have passed subsequent to the eating of the grapes, and after the administration of the oil, must have been below the grapes. The material must have been collected and become impacted below the sigmoid flexure, or else a tumor would have been discovered in the left iliac region; and furthermore, it seems impossible that such a hard and unyielding mass could have passed through the flexure. This view seems confirmed by a consideration of the facility and rapidity with which the rectum absorbs the liquid portion of fæcal matter. The frequent desire to go to stool seems only to have followed upon the descent of the materials into the rectum, and ceased before the dislodgment of the impacted mass. Defecation is a reflex movement, due, in a healthy condition of the intestinal tube, to the presence of fæcal matter in the rectum. In this case there does not seem to have been any derangement of the peristaltic actions of the bowels, or of the reflex movement of defecation, but that the latter was insufficient to expel the mass; consequently, it collected and became impacted in the rectum. The stool succeeding the removal of the mass contained no seeds or skins of the grapes.—*Reporter.*

SINGULAR CASE OF PREGNANCY.

By D. D. GILBERT, M. D., of Boston.

In the month of October, 1870, I was called upon to examine an unmarried woman, about 18 years of age, who claimed that she was with child. Her story was, that she had on the 14th of June previous, gone with a young man, from her home in a neighboring town, to attend a circus entertainment in the city; that when the entertainment was finished it was found to be too late to obtain any conveyance home, and she was obliged to pass the night at a public house with her friend; that her friend attempted to have criminal connection with her, but, encountering resistance from her, he finally gave up, muttering with an oath as he did so, " I would have been all right if I had brought some chloroform." This occurred just subsequent to the cessation of her menstrual flow. The following month her suspicions were aroused, and afterwards confirmed that she was not all right. She sought counsel of the young man, but he indignantly denied being the paternal party, and accused the girl as a strumpet. She then made her complaints to her friends, who, though having full confidence in her, hardly knew whether they should believe such a story—that she was pregnant and had never had connection with man. Legal advice, however, was called in, and I was requested to examine the case.

I found the usual external physical and general symptoms of pregnancy, three or four months advanced. Upon proceeding to a speculum examination, with a bi-valve (Storer's) speculum, I noticed some hemorrhage, and, upon closer inspection, found that the passage and opening of the speculum had ruptured the hymen, which had apparently extended across the posterior half of the os vaginæ. I also found that the girl was afflicted with gonorrhea, which she said she first noticed a few days after her adventures in the city, and which had been constant since.

Upon my closely questioning her, she asserted positively that the man did not, owing to her determined resistance, make any entrance; that no one else had ever attempted it; that she could not at first believe it possible for her to be in the family way, but that, if she were so, there was only one man who could possibly be the father. He as emphatically denied ever having made any attempt, and positively averred that, should the law judge him guilty, he would rot in jail before he would acknowledge himself the father of the child.

The gonorrhea soon yielded to treatment.

On the 4th of November, four and one-half months from the visit to Boston, motion of the fœtus was first noticed.

On the 21st of February, 1871, thirty-six weeks from the date of conception, a natural labor set in, and a perfectly-formed and well-developed male infant, weighing eight pounds, was born without trouble.

The man continued to persist in his denial until, when brought to trial a few weeks since, he pleaded guilty.

If he had not so pleaded, the lawyer for the prosecution, a gentleman of large experience, did not think he could have been convicted by the circumstantial evidence.

This case seems to me to present two facts worthy of record. The impregnation without rupturing the hymen, and consequently without entrance; and positively that pregnancy did not continue longer than thirty-six weeks, the shortest period given in the tables of Churchill, he recording it in only four out of five-hundred cases. Nor did this case present any appearance of having been premature.

There is also presented here a coincidence, if nothing more, favoring the theory that impregnation of the ovum immediately after menstruation, or in its later stages of development, produces male offspring.—*Med. and Surg. Journal.*

PLEURITIC EFFUSIONS IN CHILDREN.

DR. REHN (*Jah. f. Kinderheilk*, 1872), says that in ten years' practice in Hanau, he noticed eight cases of pleuritic effusion in children. Of these there were seven boys and one girl; the eldest child was about five years, the youngest eleven months. In two children, whom he remarked at the commencement of the disease, he noticed a pneumonic attack as preliminary. With regard to the rest of the cases, he is not able to fix on any etiology, since they came to him suffering already from effusion. In none of said children was there any other affection noticeable. The effusions in two cases were, in all probability, serious; one was probably purulent, and the rest clearly purulent. Six effusions were on the left side, one on the right; in one case, which he treated about nine years before, he does not quite remember the side. In two children, where the effusion, according to his opinion, was serous, resorption took place in two or three months; in one child (whilst he was absent on a journey), a spontaneous opening of the empyema took place both outwardly and inwardly, and the child got well. Five children were operated on by him in company with a colleague, four by an incision with or without previous puncture, and one by puncture alone. Three of those operated on died; two got well, one with chronic purulent exudation after six months treatment, the other, a child of one and three-quarter years', old with running of pus, which continued for fourteen days, and then got well after (he will not say on account of) once puncturing the chest. It lies not in the intention of the author to publish observations which have already been often published; he will content himself to relate shortly the operative processes in order to make some general remarks on these.

The first case of empyema occurred in a child of eleven months, which had been suffering in the country for some six weeks from fever, cough, dyspnœa, etc. The child was found to be asphyxiated, with a notable left sided effusion; the general nutrition was good. Puncture was at once undertaken, and about half a chopin of inodorous pus was withdrawn; on the next day the wound made by the trocar was enlarged by bistoury. After apparent improvement there supervened a deterioration after the fifth day, evinced by elevation of temperature, cyanosis, increase of cough, want of nutrition, and loss of sleep, without any lessening of the effusion. On the other hand, there was over the posterior surface of the right side, and thence towards the left, a sometimes greater, sometimes less, extended *rale* of coarser or finer description. The child died on the eighth day, and the *post-mortem* examination showed the heart pushed over to the left side with centres of lobular pneumonia on the back part of the lung on the right side with bronchitis. In the left pleural sac, about half a chopin of greenish fluid; the pleura p was much thickened, as also the aortal pleura; the left lung pushed up against the vertebræ, the upper lobe containing secretion. The bronchi hyperemic.

In the second case the author was called into consultation to a boy of three and three-quarter years of age. There was extensive empyema on the left side with pressure of the heart toward the right side of the chest; the spleen was depressed. Puncture was made use of on 1st of December, 1868, and about one and a-half chopins of pus escaped. On the 8th it was renewed, the wound was made larger and a canula left in. After a decided amelioration, about the 11th day the wound became vividly red. This turned to diphtheritic appearance, with hardness of the edges, with erysipelas and death. On *post mortem* examination, the heart was found dislocated much to the right; the right lung emphysematous, the left lung pushed backwards and upwards, and fixed in its place by growing together of both pleural envelopes. The upper lobe of the left lung was for the most part œdematous, whilst the lower lobe was soft and free from air.

In the third case, a strong child of one year old became ill on the 23rd of May, 1869, with pleurisy on the right side in the upper lobe and posterior aspect, and an exudative pleurisy quickly supervened. Apparently this was quite absorbed by the end of September, but the child again fell sick, and in October the whole of the right side of the chest was filled with effusion, which pushed down the liver, etc, Puncture with a trocar let out a great amount of pus; the wound was afterwards widened, a canula inserted, or a catheter to get away the pus. After great change in the symptoms, the making of pus ceased in about seven months, but there still remained a small fistula out of which a purulent secretion exuded. The child became, however, very strong and healthy.

In the fourth case of empyema, a boy of one year and eleven months, was attacked in October, 1870. The child was much depressed in nutrition, and looked very pitiable. The effusion was also on the left side, measurements giving under the axilla on the left side 25 centimetres, and on the right only 23 centimetres. Over the nipple 26 centimetres at left, and 23 at right side; and at the level of the ziphoid cartilage, 27 centimetres on the left side, and only 24 on the right. The heart and spleen were both pushed out of place. The operation was by incision, and tedious treatment of the child was required by daily washing out of the pus by the catheter, then using drainage tubes, etc. The child got much better until the middle of January, 1871, when headache, vomiting, sleepiness, and all the symptoms of baseless meningitis appeared, and the child died on January 23rd. The *post mortem* gave exactly the same symptoms as in case I.

In the fifth case, a child, one and three-quarter years old, had, on September 23rd, fever, dyspnœa, and cough. On October 5th, here the effusion was again on the left, Dr. Rehn determined on early operation, and, on October 7th, made a puncture, drawing off half a chopin of thick greenish fluid. The result was an astonishing recovery of the patient. The respiration sank from 52 to 32 on the third day; but a new effusion appeared, which was treated by digitalis, iodide of potassium, and iron, and gave way in about three or four weeks. Most cases seem to have occurred in boys, and most were under two years of age. The effusion was almost always on the left side and purulent. The most important fact to be noticed is the great and pressing utility of early operative treatment in pleuritic effusions, not only in purulent cases, but in acute and serous effusions. The operation is so slight as to be destitute of danger, and should be made use of.—*The Doctor.*]

EXPERIMENTAL INJECTIONS INTO THE PERITONEUM.

DR. BATHURST WOODMAN, of the London Hospital, has published, in the *Medical Press*, an account of an important series of experiments made by him in conjunction with the late Dr. Heckford.

The fluids injected were diluted lactic acid, diluted sulphuric acid, diluted liquor potassæ, and diluted alcohol. The results are thus stated:——

1st.—In all the cases, the results of these irritant injections were almost identical—the alkalies producing the greatest effect.

2nd.—*Death* resulted in all, in periods varying from twelve to twenty hours, except Case 10.

3rd.—The *peritoneum* was very slightly inflamed, except in cases where a little blood escaped into the peritoneal cavity—a misadventure which could generally be almost completely avoided when the operator was careful.

4th.—The *pericardium* was but slightly affected—slight injection of the vessels only being met with, and it was doubtful if this was not partly due to the prolonged anæsthesia.

5th.—The *endocardium*, and that chiefly of the right heart, and the tricuspid valves (see on) were affected in most of the cases, being swollen, congested, and pulpy, and exhibiting the formation of new vessels, when examined under a low power; but this occurred with dilute liquor potassæ, dilute sulphuric acid, and dilute alcohol, quite equally as with dilute lactic acid.

6th.—Pale, fibrinous clots were found in the *cavities of the heart* in some of the cases, and also in the *aorta and pulmonary arteries*, as well with the alkali and alcohol as with the acids.

7th.—The principal effects of the irritants were manifested upon the *mucous membrane of the large and small intestines and the stomach*, and, in one or two cases, of the *œsophagus* also. The mucous membrane was swollen, softened, intensely injected, and often infiltrated with blood-discs, and escaped blood coloring.

8th.—The *bladder* was sometimes similarly affected, but the *kidneys*, *liver* and *spleen* were for the most part but little injured, and presented but slight deviations from the normal, except in cases where emboli were formed in the large vessels.

Dr. Woodman adds:—"Before narrating the illustrative cases, I may state that we were (very early in our investigations) struck with the fact that the *posterior* or *smaller flap of the tricuspid valves* in both dogs and cats (and I have since verified the observation in rabbits, rats, and mice), was not at all uncommonly (indeed, in about half the animals subjected to examination) thickened, villous, pulpy, and much congested. We should, perhaps, in our early experiments, have attributed this result solely to the lactic acid injected into the peritoneal cavity, had we not been saved from the error by observing the same in animals who were killed simply by chloroform or ether, and in one instance by suffocation, or dissected from other purposes without intra-peritoneal injections. We were still further convinced that this (as far as the thickening went,) was not an artificial condition, but the result of previous disease, by a careful examination of the valves themselves. In singling out the posterior valve, we mean that it was specially affected, but we found reason to believe that endocarditis and valvular disease were not at all uncommon in domestic animals. The special liability of one (and that the posterior) flap of the valves being, so far as we know, a hitherto unnoticed condition apart from artificially induced inflammation. It is obvious that this induces greater caution than ever, in reporting on and recording the genesis of endocarditis by lactic acid or other irritants.

"A common sequel of our injections was to slow the pulse and lower the temperature at first, but as chloroform or ether were always employed, it is possible these were the active agents."

THE BRUIT DE DIABLE, OR ANÆMIC MURMURS.

In a lecture by Dr. A. Duchek, Professor of General Pathology in the University of Vienna, notes of which were taken by Karl Wavlik, and have been reproduced in the *Chicago Medical Examiner*, we find the following:

There are to be found murmurs in the heart and the veins, which do not arise from any substantial organic changes in the heart or vessels, as for instance in men and animals exhausted by loss of blood and attendant anæmia. In the same degree as the loss of blood and the paleness of the skin proceed, these murmurs appear in the heart and the veins of the throat. In severe cases, if we touch the jugular vein with the finger, we perceive at once a continued vibration like that of a string. On pressure on the upper part of the jugular vein, both the perception of the vibration and the acoustic evidence of a murmur disappear, proving it to be merely venous.

The formation of the heart sounds is modified by two circumstances: the condition of the valves of the heart and the vessels on the one hand, and the pressure produced by the blood stream on the other. As we have in such cases of anæmia no symptoms permitting us to diagnose changes in the vibrating mediums, we are induced to seek for the origin of these sounds in the causes themselves which produce vibration, viz., the pressure of the blood. In the disorders attended by these murmurs (as anæmia, chlorosis, and loss of blood), the propulsive power of the heart is unchanged, but its contractions are more frequent, while the blood is either diminished in quantity or weakened in quality. The pressure exercised by it in the circulation is also diminished, so that the impulse given by the blood column is not sufficient to develop in the valves, or in the arterial walls, the amount of tension necessary for the formation of the sound, which under normal circumstances makes its appearance in these vibrating mediums, but in these cases is lowered into the acoustic impression of a murmur.

In this way we explain the origin of these murmurs in the heart. It is more difficult, however, to trace its course in the jugular vein. Some have attributed it to the arteries, but this is contradicted by its disappearance on pressure on the jugular vein, as well as by its continuity. These sounds are modified in two ways. They grow stronger at regular intervals, being reinforced by the sounds of the carotids; we call these *moments of reinforcement.* Secondly, the murmurs are increased or diminished according to the force and rapidity of the respiration.

In the heart we attribute all sounds and murmurs to the action of *vibrating membranes.* But for these murmurs in the veins we cannot suppose that they are caused by a *whirl* of *blood*, nor by the pushing of the blood stream against a narrow entrance. Behind the insertion of the sterno-cleido-mastoideus, the jugular vein is wider than elsewhere, forming the bulbus, and beneath this bulbus, in the narrowest part of the vein, are valves. These valves have a most important influence upon the entire circulation. If the pressure in the thorax is too great, they are approximated, and thus oppose the further entrance of the blood. The part of the veins above them becomes, consequently, dilated just as in cases of stagnation in the heart, the jugular vein is distended and the jugulum grows gradually more shallow.

The venous murmurs then arise from the vibration of these valves caused by the impulse of the blood. When the blood flows slowly, the impulse is too weak and no murmur is to be heard. The murmur arises when the valves are half opened and put into vibration by a sufficient rush of the blood.

Another peculiarity is to be noted. The bulbus is attached to the clavicle, behind the sterno-clavicular articulation, and thus being stretched out, the flow of blood is facilitated. If the pressure in the thorax is increased by valvular failures, emphysema of the lungs, etc., the stream flows slowly, and, therefore, we do not find these murmurs attending disorders of the intrathoracic organs. Another consequence of this fact is, that these murmurs disappear in anæmic persons when they become affected by pneumonia or exudative pleurisy, reappearing again, however, on recovery. The two necessary requisites then, for the production of the murmur, are a speedy circulation, and a normal pressure of blood in the thorax.

This view also affords us an explanation of the fact of the murmurs growing stronger when the respiration is more hurried. The thorax being strongly dilated, the blood rushes into it in more forcible currents, thus strengthening the acoustic impression. When the respiration is impeded, or is forced, the circulation loses the necessary rapidity, and the vibrations become inaudible.

These murmurs are very rarely to be found in connection with mechanical changes in the heart. They accompany similar murmurs at the aorta, which are always systolic, never diastolic. They may, perhaps, be diastolic in the most severe disorders of this kind, where it is impossible to distinguish whether there is only one continued murmur, or whether the systolic and diastolic murmurs meet and run into one another.

MEDICAL GLEANINGS.

LEAD POISONING FOLLOWING THE USE OF A HAIR PREPARATION.—Dr. J. M. Crocker, of Provincetown, writes to the *Boston Medical Journal:* The following case of lead palsy, from using a "hair preparation," may not be uninteresting: R. W., æt. 55, laborer, was attacked with what appeared to be muscular rheumatism, affecting mainly the deltoid and other muscles of shoulders, last February. When first visited, he was suffering from pains more or less severely for a month or two. Both arms were in this manner crippled. Ordered cotton batting to affected parts, lemon juice and opiates internally. Made quite a rapid recovery, but when seen in March following he was suffering from an almost complete paralysis of extensor muscles of fingers and hands, with dropping of wrists. He could readily and forcibly grasp, but found difficulty in letting go. No lead lines about gums could be seen. Said he had had several attacks of colic within a few years. The water used for drinking was obtained from a brick well, and stood in a wooden bucket. Ordinary cooking utensils were used in his family. Subsequently, upon inquiry, I discovered that for fifteen years he had used a "hair renewer," made by himself of three tablespoonfuls lac sulphur and two tablespoonfuls sugar of lead to a pint of water. With this he had drenched his hair and scalp as often as once a week. Under use of iodide of potassium and galvanism he has made a good recovery, the hair-dressing having, of course, been discontinued. The urine was not examined after treatment began. No colic since sugar of lead was stopped.

EXCISION OF THE UVULA.—Twenty years ago, the late Mr. Yearsley published the following remarks:

"*Excision of the Uvula.*—In order to gain all the advantages, and ensure no disadvantage, from this operation, it is necessary that *the whole* of the uvula should be removed, and not part only as has been the usual practice. It is owing to this partial removal that patients have occasionally been sadly inconvenienced by the irritation kept up by the food in its passage through the isthmus striking against the amputated surface. In consequence of such result, Dr. Bennati, a talented physician of Paris, who, some years ago, used to amputate the extremity of the uvula in singers, discontinued the practice. In the numerous cases in which I have performed total excision, I have never seen such a result. It may, therefore, be set down as an axiom, that *shortening* or *snipping* the uvula is a most objectionable operation; whereas, its entire removal, by which the palatine arches are thrown into one, is an operation which, in suitable cases, is to be commended. The utmost pains have been taken to ascertain the results of loss of the uvula; but in no one case can I find that the slightest inconvenience has arisen from its removal. The fact that the removal of the uvula involves no subsequent inconvenience to the patient is, of itself, of the greatest interest, both in a physiological and a practical point of view."

Notwithstanding this sound advise, there still remain many members of the profession who practice snipping, or partial removal, to the detriment of both patient and practitioner, and with the result of causing the public strongly to oppose operative interference. I have lately met with numerous cases in which patients have submitted to what was styled removal of the uvula, proving, however, but a *partial* removal. The consequence has been, that the raw surface has remained dangling, irritated by every morsel of food that passed down the throat; and in some cases inflammation has arisen, spreading to the throat and larynx; weeks of suffering have occasionally followed, terminating, generally, by leaving the uvula as long as it was before the operation.

* * * *

All the cases in which I have removed the uvula have resulted satisfactorily; and I have experienced the good fortune of not having had any in which the bleeding has not been almost immediately stopped by cold-water gargle. In one case, the patient had an enormously enlarged uvula, half an inch in thickness, and extremely vascular. I feared that the removal might possibly cause some troublesome bleeding, so I had in readiness some of the strong liquor ferri perchloridi with which to touch the wound; but I found its use quite unnecessary, as the hemorrhage stopped in a very few moments. If in any case iron failed, I should apply a wire ligature, which could be very easily done with an instrument that I have had made for excising very vascular uvulas, a description of which I hope to give upon some future occasiou.—E. NOBLE SMITH, in the *Medical World.*

BEEF TEA AND MEAT EXTRACTS.—We have given full particulars of the alleged worthlessness of these preparations as usually met with. We now have to report the following new method of making beef tea, by Dr. H. C. Wood, who says in *New Remedies*—"In order to meet the daily felt want of concentrated fluid meat food, a want supplied by beef essence as ordinarily made, I have invented the following process, and found in practice that it works well. Take a thin rump steak of beef, lay it upon a a board, and with a case knife scrape it. In this way a red pulp will be obtained, which contains pretty much every thing in the steak, except the fibrous tissue. Mix this red pulp thoroughly with three times its bulk of cold water, stirring until the pulp is completely diffused. Put the whole upon a moderate fire, and allow it to come slowly to a boil, stirring all the time to prevent the "caking" of the pulp. As soon as it has boiled, remove from the fire; season to taste. In using this do not allow the patient to strain it, but stir the settlings thoroughly into the fluid. One to three fluid ounces of this may be given at a time."

A NEW BASE IN FLESH EXTRACT.—To the above it may be well to add that Dr. H. Weidel claims to have discovered a new alkaloid in flesh extract which he proposes to call carnin. The method of preparing which he describes in *Ann. de Chem. et Pharm.* 158, 353, and *Neues Repertorium fur Pharmacie*, Heft 10, 1871. *Carnin* is with difficulty soluble in cold water, easily so in hot, out of which on cooling it crystalizes in microscopic crystaline, carbonate of lime-like masses, which appear after drying as a lustreless, chalky (kreidig), loose mass. It is insoluble in ether and alcohol, decomposes on heating, burning on platinum foil, with a blush flame and peculiar odor. Its solution it at first tasteless, afterwards bitter. It is not precipitated by neutral acetate of lead, but gives with the subacetate a precipitate soluble in boiling water and in solution of the neutral acetate. Its formula is $C^7 H^8 N^4 O^3$ and $H^2 O$. Its chlorohydrate separates from the warm solution in muriatic acid in glassy needles. By treatment with chlorine, bromine, or nitric acid, it is converted into sarkin.—*Doctor.*

PLUGGING THE RECTUM.—William Allingham, F. R. C. S., Surgeon of St. Mark's Hospital for Fistula, London, (in his work on Fistula, Hemorhoids, etc.) recommends the following procedure, if secondary bleeding occurs after an operation for piles. When called to a case of hemorrhage, always arm yourself with a full-sized, bell shaped sponge, and plenty of cotton wadding. Take also some persulphate of iron or powdered alum. Thread a strong silk ligature through near the apex of your cone-shaped sponge, and bring it back again, so that the apex of the sponge is held in a loop of the thread. Then wet the sponge, squeeze it dry, and powder it well, filling up the lacunæ with the iron or alum. Pass the forefinger of the left hand into the bowel, and upon that as guide, push up the sponge, apex first, by means of a metal rod, bougie, penholder, or a rounded piece of wood, if nothing better can be had. The sponge should be carried up the bowel at least five inches, the double thread hanging outside the anus. When this is so placed, fill up the whole of the rectum below the sponge thoroughly and carefully with cotton wool well powdered with the alum or iron. When the bowel is completely stuffed, take hold of the silk ligature attached to the sponge, and while with one hand you pull *down* the sponge, with the other hand push *up* the wool. This joint action will spread out the sponge, like opening an umbrella, and bring the wool compactly together. The plug should remain in at least a week, and it may be restrained a fortnight or more.—*Medical Record.*

PAPILLARY HYPERTROPHY OF THE URETHRA IN A FEMALE.—Mons. Blot, who has already communicated to the Surgical Society of Paris one case of hypertrophy of the papilla, of the uretha in the female, has recently had the opportunity of seeing another instance. Up to the present moment Mons. B. has observed this disease in aged females, who had attained or passed their fiftieth year. The person who was the subject of the last observation was a lady of 52, who had suffered for some time with a pruritus of the vulva so violent that she was compelled to relieve it by scratching wherever she might be when it occurred.

On examination, Mons. B. found nothing abnormal on the labia, but on introducing the finger into the vagina, as soon as the finger touched the neighborhood of the orifice of the meatus urinarius, the patient made an abrupt backward motion, caused by the acute pain. Exposing the orifice of the urethra, Mons. B. saw that it was the seat of considerable redness; when slightly touched with the finger it produces pain. On opening the orifice, he found a little within, a small red granulation, which was a papilla enlarged and denuded of epithelium. He did not hesitate to propose the cauterization, which he performed at once with a crayon of nitrate of silver applied for fifteen or twenty seconds. The pain produced by the cauterization was soon allayed, and the patient was able to return home in a quarter of an hour, after the slight operation. She experienced some smarting, and passed a little blood in her urine, but was relieved by this simple and only cauterization.—*Med. Archives, from L'Abeille Medicale Nov.* 27, 1872.

In a late number of the *Medical Record*, Dr. J. G. Sewall, of New York, reports twenty cases of cerebro-spinal meningitis. In conclusion he remarks:

"As far as the disease presented itself here, I think we may fairly infer:—

"1st. That the term "spotted fever" is altogether a misnomer, but comparatively few cases presenting any "spots," and these not characteristic, the same being observed in other profound blood poisons, as typhus purpura hæmorrhagica, etc.

"2d. That the cause is in obscurity, as much so as that of cholera. Defective sewerage may powerfully aid in its development in certain cases, but does not account for it. Its widespread prevalence, extending from Ohio to Massachusetts, under varied climates, in pure as well as vitiated atmospheres, forbids this assumption. It seems to me that an inquiry, pushed in the direction of the late continued droughts, with the imbibition of the products of vegetable decomposition in the low wells and streams, may throw some light upon it. I think all must have noticed a peculiar unpleasant odor and taste in the Croton water through the winter and early spring.

"3d. That the disease is not contagious.

"4th. That the epidemic here and in the neighborhood has exhibited two forms. In one the brunt of the distemper seems to have invaded the cerebral meninges chiefly, and in the other those of the medulla and spine. The mortality, especially where it occurs suddenly, greatly prevails with the former. All convalescent cases have proved very tedious; and in some, I am informed, paralysis, affections of the special senses, and other neuroses have occurred.

"There are a few points which seem to determine the diagnosis, and which occur pretty uniformily in nearly all cases. They are the suddenness of the attack— pain in the head, more or less severe, not referable to any part in particular; vomiting, prostration, dilated pupils, cutaneous hyperæsthesia, with restlessness, and a rather sluggishly acting intelligence. To these may be added, perhaps, constipation.

"I close with a word about treatment. Two or more leeches to the temples, where the brain-symptoms overshadow all others, or wet cups to a small amount over the nucha, I judge are very useful. In all cases a blister to a nape of the neck is invaluable. Ice to the head and spine is a good application. The vapor bath in many cases is a very desirable agent. The bromide and iodide of potash seem to have been useful in some cases, and wholly inert in others. The ext. of Calabar bean, from Caswell's, largely given to a boy with strongly marked opisthonos, and long continued, availed nothing whatever. No internal remedy seems to me so valuable as opium in some form. It has the best effects in relieving the restlessness, insomnia, and hyperæsthesia, which are largely predominant symptoms in very many cases, is well borne in large doses, and seems, further, to exert a decidedly curative influence. Nourishment, milk especially, and stimulants in most cases, are very important."

INFLUENCE OF RHEUMATISM ON CHARACTER.—In a translation of Dr. Faure's article on this subject (*Archives Generales*, Sep. 14, 1871), by Dr. S. G. Webber, of Boston. Mass. in the *Journ. Psychological Medicine*, it is shown that rheumatism is manifested under such variable forms that one may inquire, on meeting anything unusual in a patient subject to its attacks, whether rheumatism may not be concerned therein. Why may it not attack the organs of the cerebral functions on which character depends, as well as the heart, etc?

A man who is subject to rheumatism will very often state that he has moments of despondency without cause, of inquitetude, of forlornness, inexplicable to himself. Then he is discouraged without cause, and sees everything in the shade; that which ought scarcely to be the object of a slight care becomes the cause of a cruel torment; he is without force, his thoughts can be fixed on nothing, all intellectual work is impossible; if he wishes to solve a problem he soon experiences fatigue and heaviness of his head, which often turns into a violent headache; then his sensations are altered, his affections cease, he is indifferent to everything; that which has the most right or power over his mind, remembrances which are the most dear or most painful, have no interest for him. His character has changed. He is conscious of his condition, and can for a few minutes rouse himself out of it. A crisis may follow, his head is congested, he feels quite giddy. Finally all these symptoms disappear, and his mind recovers its tone and clearness. The attacks vary much with individual disposition.

BRIGHT'S DISEASE IN CHILDREN.—According to Dr. Steiner and Neuritter (*All. med. Cent.-Z.* and *La Nuova Lgiuria Medical*), Bright's disease is far more frequent than is supposed in children.

The difficulty of diagnosis resides in the want of examination of the urine. It is common in children from two to eight years old. Scarlatina, measles, and variola often cause it. Girls are more subject to it than boys. Blows, falls on the loins, or abuse of diuretics may cause the disease. Cold may cause it. Scrofula and tuberculosis favor the appearance of the disease, as do morbus coxarius, cholera, rickets, and chronic pneumonia. Bad and unnutritious food also favor it. The prognosis is in general more favorable than in adults; but the prognosis is bad when the albuminuria is chronic. Convulsions are not so likely to be a fatal symptom in the beginning as when the disease has existed for some time.

The authors, for treatment, recommend in the acute stage, digitalis, or, if this be not well borne, nitre; and for the pain in the loins, sinapisms. They have not seen any good effect from tannin. When the symptoms of hydræmia appear, they recommend tonics, quinine, etc. Diuretics are contraindicated, as they produced an injurious excitation in the kidneys; but sudorifics and carthartics are recommended instead. When nothing contraindicates it, an infusion of senna repeated occasionally may prove successful. When uræmic symptoms arise, mineral acids and quinine are advocated. Soda water is given for obstinate vomiting, or bismuth and laudanum. In convulsions wet compresses are used, which are cold and changed frequently.—*Med. Press and Circular.*

CORRESPONDENCE

Concerning the Syphilis Corpuscles.

Eds. MEDICAL NEWS,

I enclose to you an extract from an article by Prof. S. Stricker, of Vienna, published in the "Archiv. fur Dermatologie und Syphilis," which I have translated.

Respectfully,
J. TRUSH, M. D.

It seems that Prof. Stricker has, for a considerable length of time; been investigating this subject of the so-called "Syphilis-corpuscles,' setting before himself the task to determine if possible——

1. The nature of these structures;
2. Whether or not they really were found only in the blood of syphilitic individuals; and
3. If these bodies were not also found in the entirely fresh blood, as well as in blood prepared after Lostorfer's method.

After minutely describing the various manipulations he had deemed requisite to avoid error and insure success, and having given a description of other somewhat similar structures found occasionally in blood thus examined, Prof. Stricker proceeds to answer the questions above laid down as follows:

"The bodies described by Dr. Lostorfer in his Essay, read before the 'Gesellschaft der Aerzte,' are structures not previously recognized or described. They are *never* found in entirely fresh blood, but make their appearance in certain specimens of blood sometime after its removal from the body, if placed under favorable conditions. The space of time requisite for their production or growth varies from less than one hour to three and four days; the rapidity of development depending mainly on the temperature to which individual specimens are subjected. Thus, for instance, did he succeed in growing and recognizing them in blood-specimens taken from a man afflicted with constitutional syphilis and phthisis combined, within the first half-hour of their exposure to a temperature of 25 deg. C. But under these circumstances, the 'corpuscles' remained small, never attaining to the size of those whose development took place at a lower temperature and a longer space of time."

Respecting the characteristics of these bodies, Prof. Stricker says:

"Their first appearance is in the form of very minute granules: these with a temperature of 25 deg. C., grow rapidly and reach, in the course of about an hour and a-half, the size of a small pus-corpuscle; they are then spherical, and, seen by a No. 10 or 15 immersion lens of Hartnack, homogeneous. When fully developed, the projections described by Dr. Lostorfer are frequently present, but they are not outgrowths, inasmuch as he (Prof. Stricker) has observed smaller ones of these structures to attach themselves to larger ones, which latter then possessed the appearance as if an outgrowth had taken place from a parent body when in reality it was simply an agglomeration of two or more of these structures; and he believed it highly probable that this was the manner of growth of these bodies." Their origin, Prof. Stricker had not been able to determine, *i. e.* he could not say whether or not the seeds existed in the circulating blood, or were derived from the atmosphere after withdrawal from the body, during the process of preparation, or arose, perhaps, through spontaneous generation.

In respect to the other and more important question, are these bodies found in the blood of syphilitic persons only? in other words, are they characteristic of syphilis? he could say, with certainty, that they are *not* characteristic of this disease, he having found them in the blood of individuals affected with various other diseases.—phthisis, cancer, and lupus for instance,—and also in the blood of persons apparently in good health. Only this distinction had he been able to make, viz., that these structures appeared in much greater numbers in the blood of individuals who were suffering from exhausting diseases and were much debilitated than in the blood of others not thus afflicted; likewise had he frequently failed to find them at all in the blood of healthy persons, whereas in the blood of persons affected with syphilis, phthisis, lupus, or cancer, they were rarely absent.

Johnstown, N. Y., July 27th, 1872.

My Dear Sir,

As I am the manufacturer of the extract known to the profession as "Kennedy's Concentrated Extract Pinus Canadensis," it is my duty to keep you advised of impure and dangerous articles that unscrupulous parties are likely to put before the profession. Such are now trying to force on the market, for physician's use, an article of Hemlock Ext., manufactured for tanners' use, which is impure, being adulterated with blue vitriol, etc., which tanners and extract manufacturers are obliged to use. In most cases it is filthy with both urinal excretions and other stable deposits, which are designed to intensify its effect for tanning purposes, and which render it wholly unfit for medicinal purposes.

As I have been a manufacturer of extract for tanners' use for years, I know that there is poisonous acid enough in one pound to kill four men. The Pinus Canadensis (Kennedy's) is put up in one-pound bottles, sealed, and is labeled "Kennedy's Concentrated Extract Pinus Canadensis." I extract the virtue of the bark by pure *distilled* water. I cleanse and filter the infusion perfectly clear and pure. It is then evaporated in vacuo 250 deg. by the barometer, which makes a constant and uniform fluid extract without the addition of acid or alcohol.

Respectfully, Yours,

S. H. KENNEDY.

Book Notices.

A MANUAL OF QUANTITATIVE ANALYSIS. By ROBERT GALLOWAY, F. C. S., Prof. of Applied Chemistry in the Royal College of Science for Ireland, etc. From the 5th re-written and enlarged London edition, with illustrations. Philadelphia: H. C. Lea. Cincinnati: R. Clarke & Co. 1872. 12 mo. Pp. 402.

This will be found by students a very excellent work on quantitative analysis. Practical chemistry is herein taught in a manner quite superior to what it is generally in most works on chemistry.

The plan adopted is to contrast the properties of the different members of each group by placing them in parallel columns; the advantage of this is, that the student, after he has performed the experiments, is able, himself, to devise methods for the detection and separation of the different members; it places him, in fact, in the position of a judge who has to decide some cause after having heard all the pleadings. It enables him also to judge for himself how many different methods might be adopted in the separation of substances; it, therefore, enlarges his views, and enables him to *reason* on the methods he adopts.

In other works on Quantitative Analysis, the properties of the bases and acids, and the application of these properties to the analysis of substances, are treated separately. As a consequence, the student, when he goes through the experiments on each base and acid, performs these illustrations of the properties without perceiving their use or application.

It has been the design of the author to make the work a *student's* work on chemistry.

THE MAGNETIC AND MINERAL SPRINGS OF MICHIGAN, to which is prefixed. AN ESSAY ON THE CLIMATE OF MICHIGAN. By STILES KENNEDY, M. D. Wilmington, Del.: James & Webb. 8vo. pp. 100.

The author chose to make a thorough investigation of the Medical virtues of the Mineral and Magneetic Springs of Michigan, and of the suitableness of that state in other respects as a resort for invalids, and for that purpose spent last summer (1871) in Michigan. This volume may, therefore, be looked upon as a Medical Report of his observations on the effects of the waters and climate of Michigan in disease.

Physicians desiring to inform themselves of the treatment of disease by magnetic and mineral waters will find this work an excellent one for the purpose. Besides a description of the different springs of Michigan. Water as a medicine, and the Proper Use of Mineral Waters, are treated of.

The Owosso Chalybeate Spring is stated to contain four times the amount of iron contained in the Red Sweet Spring of Virginia, the most celebrated chalybeate water in this country.

A DICTIONARY OF THE BIBLE,—comprising its Antiquities, Biography, Geography, and Natural History. With numerous illustrations and maps, engraved expressly for this work. Edited by WM. SMITH, Classical Examiner of the University of London. Cincinnati: National Publishing Co. 8vo. pp. 1017.

When we were in our teens, a pious octogenarian, who made pretensions to being a skillful physician, gravely informed us, as the wisdom of years, that a non-professional man needed in this world but two books—a bible and good hymn book; while a doctor needed, in addition, only "Thompson's Practice of Medicine," which contained, beyond a doubt, the whole art of healing. Now, although we are not able to speak from the standpoint of as many years as our old friend, yet we would say there are *four* books which *ought* to be found in every household,--the Bible, a good Hymn Book, an English Dictionary, and a Bible Dictionary. As to other books, we are of the opinion that, *after having secured these*, as many should be added as the financial circumstances of the individual will permit, particularly such as treat upon natural science--the microscopic world, etc. etc.

The Bible, though destined by its Divine author for the whole human race and for all time, was, of necessity, first addressed to a particular people, of a certain age and country, and its language was, of course, greatly influenced by these circumstances of time, place, and nationality.

It, therefore, necessarily abounds in local allusions, and historical and geographical references, which the lapse of centuries has rendered more or less obscure to the Bible reader of our day.

The Dictionary before us, for wide and general use, contains a full and accurate account of every place and name mentioned in the Bible, which can possibly need explanation,--of every animal, plant, or mineral alluded to by the Sacred Writers, and of every custom and article of use among Jewish and contemporary nations, to which reference is made in the Bible or Apochrypha. The most recent researches of Robinson, Layard, Rawlinson, and many other explorers in Bible lands, here render their aid in determining questions hitherto unsettled, or in correcting the mistakes of previous investigations. It contains also a sufficiently complete history and analysis of each of the books of the Bible, while adequate biographical sketches are given of each of the inspired penmen, and of every historical character mentioned in the Bible,--every article being entirely reliable, and many of them the results of the ripest and rarest scholarship, and embodying the substance of whole treatises upon their respective subjects.

The mechanical execution and typography of the book are equal to its rare merits in other respects. The work is generally sold by subscription, but it can be obtained directly from the National Publishing Co., Elm street, between Fourth and Fifth streets, Cincinnati, O.

Editorial.

CINCINNATI COLLEGE OF MEDICINE AND SURGERY.—The new building of this institution is rapidly approaching completion, and will be ready for occupancy by the middle of September, when the preliminary course of Lectures will begin. At the time of writing, the work has so far advanced that one can see in outline the plan of the architect in the construction of the lecture rooms, faculty rooms, halls, dissecting rooms, etc. etc. Every step of progress developes more favorably the adaptability of the building for the purposes for which it is designed. Whilst not so large as the largest college buildings, it will be sufficiently ample to accommodate any class of students that has ever attended any one of the medical colleges of Cincinnati, and certainly no building in the country will be more tasteful in appearance throughout, or more convenient.

The prospects for a good class the coming session are very encouraging indeed. A college having a commodious, substantial building, possessing every facility for thorough didactic teaching, and located in a great city where means for imparting clinical instructions are unsurpassed, must meet with a due share of prosperity, and we have no doubt but this school will.

THE STOKES TRIAL.—The remarks of the *Med. Times*, of August 15th, in speaking of the recent trial of Stokes in New York, about the exhibitions of petty personal malice, which often occur between medical witnesses on criminal trials, holds good as regards many of the profession of this locality. A number of trials have lately occurred in this city and vicinity, wherein both parties have had their medical experts, who, on the witness stand, disgraced themselves and their profession by their efforts to overthrow the testimony of one another, and by their exhibitions of malice. We quote from the *Times:*

"As a general rule, the medical profession appears to but small advantage in courts of law; but it seldom offers so sad an exhibition of petty personal malice and disgraceful wrangling as on the recent occasion of the trial of Edward S. Stokes for the murder of James Fisk, Jr., in New York.

"According to the reports published in the daily papers, Dr J. M. Carnochan, being called as a witness, took the opportunity to attack the character of Dr. Lewis A. Sayre, who had attended Fisk after the shooting, and who was called for the prosecution. Dr. Sayre, perhaps not unnaturally, but certainly at a great sacrifice of personal and professional dignity, retaliated with vigor when his chance came. Other medical witnesses gave testimony of a curiously conflicting character, and the upshot of the matter was that all the medical evidence was very properly thrown out,—the question turning on the proof of the shooting being done in self-defense.

"We can conceive of few graver or more responsible positions in which a man can find himself, than on the witness-stand as a medical expert, in a trial for murder. Such was Dr. Carnochan's relation to the Stokes case; and yet he seems to have forgotten everything except the chance that offered itself for him to attempt to injure a rival practitioner.

"The legitimate and inevitable result of such displays is that the whole medical profession loses in the public esteem, and quackery of all kinds must gain in proportion. They would be impossible, if medical men duly realized the dignity and importance of the trust confided to them as a body, and if each felt his own responsibility for the upholding and guarding it."

A NEW MEANS OF COMBATING MUSCULAR CONTRACTION.—Every one is familiar with the resistance offered by muscular contraction in the reduction of dislocations or of fractures with displacements of the fragments. In order to avoid this difficulty, resort is had to reduction as soon after the accident as possible to profit by the condition of stupor existent at that time. After this period, etherization becomes necessary. M. Broca, however, has devised a means which is void of the inconveniences of anesthesia; it is compression of the principal artery of the wounded limb. The muscles, deprived of the blood necessary for the exercise of their functions by compression of the brachial or femoral arteries, are unable to contract.

SOUTHERN OHIO LUNATIC ASYLUM.—Dr. S. J. F. Miller, of Cincinnati, has been appointed Superintendent of this institution. In selecting the gentleman they have to have charge, the trustees have done credit to themselves, and good service to the unfortunates who are inmates of the asylum for the healing of their minds. Dr. Miller has, in a high degree, those qualities which should be possessed by one who has charge of a hospital for the insane—humanity and skill in his profession.

GOING TO EUROPE.—Dr. Geo. Mendenhall, we understand, has discontinued professional business, and gone with his family to Europe. He designs, we believe, being absent for several years. He will undoubtedly be much missed by his colleagues of the college with which he has been connected, as he was the most active and prominent of them all; in fact, his absence will be felt by the whole profession, for he has been a useful man in it. He, however, deserves the recreation he is taking, for during the many years he has been in active practice no physician has been more assiduous and constant in his attention to the discharge of his duties.

Dr. Wm. B. Davis, also a prominent physician, has sought Europe for the restoration of failing health. The Dr.'s health has been poor for a long time. A much younger man in years and in practice than Dr. Mendenhall, we hope he will soon return in the enjoyment of restored health, and be able to resume the practice of his profession. Dr. D. has for a long time been a useful member of the Board of Trustees of the Cincinnati Hospital, and has aided in carrying out a number of reforms in that institution.

CINCINNATI HOSPITAL STAFF.—*Medicine;* C. G. Comegys, John Davis, W. Carson, W. P. Thornton.
Surgery; Thos. Wood, D. S. Young, B. F. Miller, C. S. Muscroft.
Obstetrics; M. B. Wright, C. D. Palmer.
Ophthalmology; Jos. Aub, C. S. Ayres.
Pathology; J. C. McKenzie, N. P. Dandridge.
Dispensary; C. O. Wright, John Cilley.

NEW MEDICAL COLLEGE.—A medical college has been organized at Wilmington, N. C., under the title of the College of Physicians and Surgeons. DR. J. FRANCIS KING is President, and DR. WM. WALTER LANE is Dean.

There will be both a winter and summer course, each with clinical facilities.

MEDICAL PERIODICALS.

Braithwaite's Retrospect.—As our readers are aware, this is a half-yearly journal of practical medicine and surgery. It contains a retrospective view of every discovery and practical improvement in the medical sciences digested from the leading medical journals of the world. It has been republished in this country, every January and July, since 1840. Our subscribers, taking this half-yearly in addition, will be pretty well supplied with the current medical literature. Price $2.50 a year. W. A. Townsend, N. Y., publisher.

The Half-Yearly Abstract of the Medical Sciences.—This also is a half-yearly journal, of the character of *Braithwaite's Retrospect*, and is a most valuable one. It gives the cream of the medical literature for the previous six months. The price, taken alone, is $2.50 a-year; but the publisher, Mr. H. C. Lea, of Philadelphia, offers it on the following liberal terms: *The Abstract; The American Journal of the Medical Sciences*, published quarterly, containing 1150 pages per annum; *The Medical News and Library*, published monthly, containing 384 pages per annum,—all far $6 a-year.

The Compendium of Medicine.—This journal has the merit of being an American production. It is published half-yearly, as are the others, and contains the gist of the best journals of the world. It contains, however, very far more extracts from American journals. No one could take a better journal than it. Published by Dr. S. W. Butler, of Philadelphia, who publishes also *The Medical and Surgical Reporter*, a weekly journal at $5, and a most valuable one. The two taken together meet with considerable reduction. Price $2.50 a-year.

The Journal of Psychological Medicine.—This is a large quarterly, devoted to psychology and diseases of the nervous system, edited by W. A. HAMMOND, M. D. There is scarcely any department in medicine of which physicians are so ignorant as that to which this journal is devoted. This should not be so, for it is a most important one; and we would like, therefore, to see every one a subscriber of it. Its writers are the most learned of the profession. Published by D. Appleton & Co., New York. Price $5 a-year.

THE

CINCINNATI MEDICAL NEWS.

VOL. I. CINCINNATI, OCTOBER, 1872. No. 10.

OLD STANDING DISEASE IN THE HIP.—SUCCESSFUL EXCISION OF THE JOINT.

By D. D. BRAMBLE, M. D., Prof. of Surgery in the Cincinnati College of Medicine and Surgery.

Although the subject of removal of the hip-joint by excision has often been written and commented upon, yet we think the occasional record of fresh cases, with their results, will prove of service by drawing attention more particularly to the diseases of this important articulation, which require operative interference. We, therefore, on the present occasion, give the particulars of a case of exsection of the head of the femur and portions of the acetabulum in a young man.

Wm. S., aged 21, came under my care in April, 1872. An American, with fair complexion and light hair. He stated that five years ago, while running through a field, he fell into a well, and injured his hip upon the right side. From the time of this accident, he had more or less pain in walking, and an inability to stand on the diseased leg. These symptoms gradually increased in severity until two years ago. The case had been regarded by many as one of luxation of the hip-joint. At this time he was induced to see a certain medical man some miles from his home; one supposed, in his locality, to possess great surgical knowledge. The said Dr. made an examination, and at once declared it to be a case of luxation, and proceeded to reduce the same with pulleys and five assistants. They labored faithfully for one hour and ten minutes. The result was that the young man lay upon his back for sixteen weeks, suffering intensely from inflammatory action excited by such rough handling. An abscess formed below the trochanter major, which discharged freely. Two months later, one formed in the fold of the groin. These had discharged freely up to the time he came under my treatment. He had been progressively getting weaker and more emaciated, having, however, a cheerful expression of countenance. There was a hectic flush on the cheeks; night sweats; the pulse was small, always above 120; appetite bad. He lay constantly on his left side.

On examination of the affected limb, the leg was found flexed on the thigh, and the thigh flexed on the trunk, and the right knee overlaying the other. There were two openings about the hip-joint in the situation above mentioned, which discharged unhealthy pus, and led to the bare bone. Manipulation gave the patient considerable pain, but otherwise he made no complaint. The hip-joint was entirely motionless, all the apparent movement taking place in the spine.

We placed him on a tonic course of treatment for four weeks, with a view of bettering his condition preparatory to an operation, without, however, the slightest improvement. Regarding this as an extreme case of femoral coxalgia, we had to choose between standing by inactively and seeing our patient gradually sink exhausted by the suppuration resulting from the diseased bone, or by excising the carious structure, remove the cause of the wasting discharge, and thus hope to avert an otherwise necessarily fatal termination. Hence, our first and prime object in operating was the preservation of our patient's life. It is a rule in surgery, as all are aware, that whenever a patient's strength is being worn out by the hectic consequent on suppuration resulting from carious bone, the cause of this constitutional disturbance should be removed, if possible.

The operation was performed May 2nd, 1872, assisted by my colleagues, Professors Amick and Baum, Drs. Wm. and I. N. Jones, and L. R. Bramble. Chloroform having been administered, I made a curvilinear incision about five inches in length, with an antero-inferior concavity, embracing the superior and posterior margins of the great trochanter. The diseased parts were readily exposed, and the head of the bone easily disarticulated, and then pushed well out of the wound and sawn through three inches below the great trochanter. Nearly the whole of the acetabulum was also removed. No ligature was required.

The amount of blood lost was surprisingly small, which was important to our patient, as every drop of blood was to him of the greatest value. The edges of the wound were brought together by five points of suture; a piece of wet lint and a roller completed the dressing. When in bed he was ordered an anodyne draught. The entire head of the bone was denuded of cartilage, roughened, eroded, and altered in shape, the greater portion of it being eaten away; ligamentum teres was entirely gone; the neck of the femur and the shaft as far down as removed were denuded and carious; the trochanters were more than half eaten away.

May 3rd. Slept some after swallowing the draught. Countenance cheerful; a little incoherent in his talk; lies on his back with the limb slightly bent and abducted. Pulse 130 and feeble. Vomiting frequently; gave bismuth and morphia.

May 4th, 8 o'clock A. M. Patient cheerful; much vomiting through the night; has an urgent thirst. Pulse rapid and feeble; extremities cool; still has much desire to drink. Treatment continued. 7 o'clock P. M., has not so much thirst; extremities warm; pulse rapid, but more full than previously; vomiting not so frequent. He has taken some food; and slept some during the day, but none last night.

May 5th. Pulse 115; he slept well; surface rather warm; appetite good. The wound is looking well; some tumefaction.

May 6th. Countenance is rather sallow; pulse rapid; urgent thirst. He complains of soreness about the wound; it has an ash-colored appearance, and is surrounded with an erysipelatous blush.

May 7th. Erysipelas well marked, which continued for six or seven days, extending over the entire limb, the scrotum, and the right side as high as the seventh rib. Wound discharging a thinnish, sanguinolent, unhealthy-looking matter. Treatment, tincture ferri mur, both internally, and as a topical application, eggs, beef-tea, etc.

Since the subsidence of the erysipelas, he has been slowly improving. The only dressing applied was a wash of carbolic acid; edges well supported by means of broad adhesive straps; granulations formed rapidly on the bone, and the wound closing at the edges. At the present time there is, however, but little disposition of the wound to heal; it is discharging freely, the source of which is apparently the cotyloid cavity.

PUERPERAL CONVULSIONS IN A PRIMIPARA, AT EIGHT MONTHS GESTATION, CURED BY INDUCTION OF PREMATURE LABOR.

By J. S. R. Hazzard, M. D., Harmony, Ohio.

There is, perhaps, no scene that the physician is called to pass through professionally, that is more indelibly photographed upon his memory, than that presented at the bedside of a woman struggling in puerperal convulsions.

Notwithstanding the general features of all cases of puerperal convulsions are so nearly alike that a description of one answers for all, yet there is a shading of circumstances, or some peculiarity of symptoms, either in the cause, or order of their occurrence, which serves to individualize each case, and make it an object of interesting study to the physician.

It is only in consideration of the above facts that I can offer any apology for adding another to the many hundreds of cases of puerperal convulsions already reported.

Was called early on the morning of the 22nd of July, 1872, to the bedside of Mrs. H——, married, aged 30 years, of bilious temperament, full habit, having always enjoyed good health, without any known hereditary predispositions to disease. On my arrival, I learned that she had had two terrible convulsions in quick succession, the first attack occurring while attempting to dress herself. Before ascending to her chamber, we heard her deep, stertorous, apopletic breathing, that told us too plainly that disease was grappling her vitals in its most deadly forms. An hour has elapsed since the last convulsion and she is yet comatose, but can be aroused by much shaking and loud calling; her face appears livid and swollen; her eyes injected, pupils contracted; tongue lacerated and bloody; pulse 90, soft and regular; respiration slow and deep; the back of the head abnormally hot; hands and feet cold. There being no *stadium prodromorum* by which we could get the slightest insight to the cause of the phenomenon transpiring before us, our embarrassment was augmented by the apparent diffidence of the relatives. She has not uttered a single complaint; has taught school all summer; and was married but two weeks ago. Preparing to make an examination per vaginam, I discovered her clothes and bed to be very wet, and, judging from the smell and stain, believed it due to a large discharge of urine. Placing my hand upon the abdomen, I was astonished to find her pregnant, probably near full term, as the fundus was above the umbilicus. On attempting to examine the vagina and os uteri, I encountered considerable difficulty from the extreme hyperæsthesia of the sexual organs; so sensitive were they to the touch that an examination per vaginam would arouse her more effectually than any means at our command. But pushing our investigation in this direction regardless of resistance, we found the vagina cool, with only the ordinary degree of moisture; the os hardly dilated sufficiently to admit the tip of index finger, and the cervix uteri not entirely obliterated. Notwithstanding there had not been any uterine contractions, and all the evidence elicited by vaginal examination contradicted the idea of approaching labor as the exciting cause of the convulsions, yet I could not resist the conclusion that they were eccentric, and that a distended uterus was the exciting cause. She having ate heartily the day before, we, with much difficulty, got her to swallow a cathartic—

℞ Calomel, gr. x.
Podophyllum, gr. ij.
Rhem, gr. v.

and also prescribed bromide potassium and chlo. hydrate—10 grains each every two hours. Cold to the head and mustard plasters to the feet.

Was sent for at noon; learned that my patient had vomited once and purged freely at the same time; she had had four convulsions quite as severe as the first two, and that it had been impossible to give the medicine, her stupor being so profound. Being attacked with a terrific convulsion soon after my arrival, I poured upon her head, from the spout of a coffee pot, at the height of two feet from her head, two gallons of ice-cold water, with manifest relief; also injected per rectum forty grains hydrate chloral every hour.

Two o'clock P. M. She has had three convulsions since my arrival at noon, not quite so severe as the preceding ones, but recurring more rapidly. The whole aspect of the case is one of imminent danger, and unless the uterus is speedily emptied, death is inevitable. At this juncture sent for Dr. John H. Rodgers, of Springfield, and continued the injections of chloral hydrate, and showering the head; the softness of the pulse precluding any idea of bleeding.

Dr. Rodgers arrived at 4 o'clock P. M., three-quarters of an hour after what proved to be her last convulsion. After a due analysis of all the facts in the case, he believed induction of labor presented the only hope of recovery. Having my contemplated course of procedure thus ratified by one whose judgment I esteem so highly, we immediately set about to accomplish so delicate and difficult a task. Dr. Rodgers administering chloroform, dilating the os, and delivery, by turning, devolved upon me.

All the preliminaries being arranged, at a quarter of 5 o'clock P. M., I introduced my index finger into the vagina, and found the parts, as before stated, cool and moist; the os was still undilated but soft and dilatable. I was enabled, therefore, to reach the internal os quickly, which was very firmly contracted, feeling like a cord ligating the cervix; but after some time of uninterrupted pressure, it began to relax slowly, until by persistent effort I was enabled to introduce my fingers, one by one, and finally my whole hand passed into the vagina. I was now fully assured that the head presented, the long axis lying diagonally across the brim of the pelvis, the occiput against the sacro-iliac synchondrosis. Having stormed the fort and carried its strong point, I felt now, that my hand was within the uterus, I was master of the situation; but it was not until after long perseverance and much fatigue, assisted by Dr. Rodgers pressing on the fundus, that I was able to grasp the right knee. Turning and delivering the body of the child was soon accomplished, but being considerably fatigued, I requested Dr. Rodgers to complete the labor, which he did very adroitly. The time occupied in this operation was but two hours from the introduction of my index finger into the os until Dr. Rodgers removed the placenta. But two ounces of chloroform were used.

Although there was not a single contraction during the whole of our manipulations, yet the uterus responded quickly and firmly to the stimulus of cold water and kneading after the removal of the placenta. While kneading the womb I thought I felt another child, and called Dr. Rodgers's attention to the fact, but an examination, with a view of removing the second child, developed the fact that the whole fundus was occupied by a hard resisting mass, that to the external touch very much resembled a child. Having arranged everything comfortably about her, and being satisfied that she would come from under the influence of chloroform kindly, we left her for the night, ordering ten grains each of bromide potassium and hydrate chloral to be given every two hours if very restless.

July 23rd, 8 o'clock A. M. Patient disposed to toss about a good deal the first part of the night, but the medicine ordered soon quieted her. She is conscious at times this morning, but gets her ideas pretty thoroughly mixed up; her tongue looks badly from the deep gashes inflicted yesterday. Her skin is cool and soft; pulse 98, easily compressed and regular; eyes less injected and her features are very much improved since last night; womb tender to the touch, but lochial discharge is sufficiently abundant; she has passed no water during the night, neither does there appear to be any secreted. The hard mass is still prominent at the fundus. Continued the same prescription every four hours during the day.

7 o'clock P. M. Found my patient steadily improving; quite conscious; pulse 84; made water freely during the day; has some desire to eat. Continued the prescription through the night, if she could not sleep.

July 24th, 9 o'clock A. M. Patient complains of being very sore all over this morning, but everything indicates a favorable convalescence. The fundus is still large and hard—conveying the idea that it grasps a foreign body, but there is no unusual tenderness. She is entirely oblivious to everything connected with the terrible ordeal through which she has just passed. Ordered a dose of castor oil, light diet, and perfect quietude for the next two weeks, and, with the understanding that if any unfavorable symptoms should occur, I was to be notified immediately, I dismissed the case.

Aug. 5th. Mrs. H—— has made a rapid recovery without one single untoward event occurring.

The child was large and well developed for an eight-month gestation. It probably died several hours before labor was induced.

There are several points connected with this case worthy of consideration. The first that I will allude to was the very remarkable discord existing between the character of the pulse and the rest of her symptoms. Any or every experienced physician, upon entering her chamber, would at once recognize in her bloated and livid features, her profound coma and stertorous breathing, her large head and plethoric development, a case of apoplexy in which the lancet is imperiously demanded; but when he put his finger on the pulse, and finds it soft, regular, full, and only 90 per minute, he would hesitate to use so potent a remedy, unless besotted by an incorrigible routine. Secondly, the exalted state of sensibility of all the sexual organs—the mere touch of the labia arousing her from the most profound coma more promptly and effectually than any means we could adopt. Thirdly, the entire absence of uterine contraction, either before or during the induction of labor. Fourthly, the promptness and energy with which the uterus responded to the stimuli which were brought to bear upon it immediately after the removal of the placenta. Fifthly, the large hard mass occupying the fundus of the uterus. And lastly, the rapidity with which premature labor was induced, considering the contracted and rigid condition of the internal os, was truly remarkably.

CARDIAC COMPLICATIONS IN BLENNORRHAGIA.

By Dr. LACASSAYNE, medicin aide major, repetiteur de medicine a l'Ecole du service de sante militaire.

Translated by Dr. THOMAS C. MINOR, from the *Archives Generales*. 1872.

The relations between blennorrhagia and affections of the serous membranes are perfectly established and admitted at the present day by all pathologists. The clinical facts are less numerous regarding certain serous membranes, and it has seemed useful to me to re-unite, in a fasciculus, the divers observations published upon cardiac complications in blennorrhagia. It is well to know their frequency. It is, perhaps, the one chapter to add to the interesting discussion which took place regarding blennorrhagic rheumatism before a society in Paris, in 1866.

The observations of blennorrhagic arthritis abound, and, without being completely in accord regarding the theory and mechanism of their production, every one admits the inflammation of the urethra proceeding to a synovitis with or without suppression of the discharge. It is a very long time since, that practitioners observed blennorrhagic arthritis, many according the honor to

Selle and Swediaur,[*] in 1781, of this discovery.[†] But according to M. Ricord,[‡] the oldest mention is in G. Musgrave, *de Arthrite Symptomatica, a Geneve*, 1723 (after the works of Sydenham). M. Vœlker,[§] in his thesis, gives priority to Martiniere, who expresses himself thus at page 122 of his Traite sur la Maladie Venerienne, 1644:

"It is not necessary to stop too promptly an attack of clap, for fear of bringing about a retention of veriolic virus which manifests itself by pains analogous to those of rheumatism."

It is possible that Martiniere and Musgrave may have foreseen and proved this complication of blennorrhagia. But it was really Swediaur who brought it to light. To it he has given at the same time the name of gonocele arthrocele, tumeur blennorrhagique du genou. He has described, moreover, the blennorrhagic inflammation of bursæ under the name of caphose.

Since, Ricord, Cullerier, Lagneau, Frocard, Velpeau, and others have observed blennorrhagic inflammations of these same bursæ, as that of the tendon Achilles, the patella, the acromion, the sheaths of the peroneus and extensors of the thumb. In the ophthalmia, iritis of a blennorrhagic nature, the inflammation affecting the anterior layers of the iris and the membrane which lines the posterior face of the cornea, the membrane of Descemet of a serous nature, is principally attacked.

It is not doubtful, after so many observations, that the blennorrhagic discharge establishes a connection of relations and casuality between the canal of the urethra and the serous and other articulations. We can not then be astonished to see the splanchnic serous membranes attacked in their turn under like conditions; but here the cases are less frequent, because that their serous membranes may be less impressionable from these same causes, or that they show in these cases the pathological independence, described by Bichat, between the articular serous membranes and the splanchnic serous membranes. M. M. Ricord and See. Tixier have both observed blennorrhagic pleurisy. M. Ricord speaks of a paraplegia of the same nature; and M. Tixier reports, in his thesis, a similar observation (Observation

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[*] Swediaur.—London Medical Journal, 1781.

[†] Observations et materiaux pour servir a l'histoire de l'arthrite blennorrhagique. Art. Med., 1857, tome VI. p. 370-348. Ravel.

[‡] Gazette des hopitaux, 1848, August 29th, No. 133.

[§] De l'Arthrite Blennorrhagique, Paris, 1868.

XIII.). From Observation XIV., of the last named physician, "Blennorrhagia, articular affections, cerebral troubles," should have been designated under the head of "Blennorrhagic cerebral rheumatism."

The endocardium and pericardium are most frequently attacked and, in the meanwhile, M. Fournie says, in his article upon blennorrhagia, "Some authors have advanced the idea that this disease may be complicated by pericarditis or endocarditis; . . but these are only excessively rare accidents." Trousseau, seeing a patient attacked with arthritis of the knee, which developed itself after an abrupt disappearance of blennorrhagia, made the diagnosis of blennorrhagic arthritis. In spite of the successive migrations of the pains into different articulations, he bases himself above all on this circumstance. "That which seems to serve as a distinct characteristic in this sort of arthritis is the fact that, notwithstanding the existence of many attacks of arthritis, there is never any affection of the heart."

Grisolle, in a clinical lesson upon blennorrhagic arthritis, expresses himself thus: "I have never observed, moreover, either on the part of the heart, or on the part of the pleura, those complications so common in true rheumatism."

M. Martineau does not speak in his thesis of endocarditis.

M. Rollet has not seen a case of it; here is how he expresses himself: "M. Ricord speaks of having observed in blennorrhagic rheumatism symptoms of endocarditis, and effusion into the pericardium. I have auscultated the heart in the majority of patients affected by blennorrhagic rheumatism who presented themselves at my *service* at the 'Antiquaille,' and have noticed nothing abnormal. I know of only three cases in detail where auscultation has revealed an affection of the heart—the third and the tenth of Braudes (these latter were communicated to him by M. Lehman), and one other by Hervieux."

More fortunate than M. Rollet, I have collected six cases of blennorrhagic endo or pericarditis. It is true that I have searched in vain the observations of M. Ricord, cited by all authors. M. Suquet speaks of a work of M. Bonniere, containing a similar observation. I have not been able to procure this work.

This would then be nine cases, and in all the cases we know of, the blennorrhagia was accompanied by multiple arthritis of such a kind that the affection of the cardiac serous membranes may be considered as a localization of blennorrhagic rheumatism. This is the one capital condition wherein differ completely the cases already observed from those which I am going to report. To my personal observation, blennorrhagia has caused from its first onset, a pericarditis without passing by the articulations. The difference seems to me very important, so that before presenting my observations, I will rapidly report the six cases of which I have spoken.

1. OBSERVATION III.—From the memoir of Braudes. He cites the case of a man who had several attacks of blennorrhagia always complicated by rheumatism. And in one of these attacks he noted the following symptoms: "The pulse strong, hard and frequent, and, on auscultation, I heard the first bruit of the heart prolonged and rude. There was slight palpitation. I applied scarified cups, and, after some days, these symptoms disappeared." A more complete observation was communicated to Braudes by Dr. Lehman.

2. OBSERVATION X.—From the memoir of Braudes. Man of 50 years. He has had, in the last ten years, five attacks of clap, followed each time by arthritis more or less serious, discharge coming on anew, and very soon afterwards violent pains, swelling of several articulations. Some days after, ophthalmia was added, and besides the arthritis and ophthalmia, I diagnosed a notable pericarditis. The *bruit de frottement* (rubbing sound) was very strong; the movements of the heart were irregular; percussion gives a dull sound to a great extent; there was palpitation and pain in the praecordial region; pulse accelerated and tense. Bled the patient sixteen ounces; gave a powder composed of calomel and opium every two hours. Pericarditis and general condition is ameliorated. The ophthalmia persisted a short time longer, and finally the patient was cured completely.

3. BLENNORRHAGIA; ARTICULAR PAINS; PERICARDITIS. (Observation published by Dr. Hervieux, in the *Gazette Med. de Paris*, June, 1858.)

X——, aged 23 years, entered the "Hopital Midi" March 6th, 1858. He had an attack of gonorrhœa three weeks since, which has been complicated the last five days by articular pains principally localized in the right knee; no fever.

The 13th of March, without external appreciable cause, insomnia, pains in both knees and in the different joints of the superior and inferior limbs. *Bruit de souffle* at the base of the heart with the first sound; cardiac pulsations very sensible. The days following, this general state persists, but the pains and the swelling are localized in the two knees, and the tibio-tarsal articulations in the shoulders and wrist, the left above all.

The 21st. There is nothing the matter with the superior limbs. The two knees were still tumefied, the left a little less, but in the right it was possible to determine a certain quantity of synovial liquid. The 12th of April the patient asked for his discharge. The articulations are in a very good condition; the cardiac *bruit de souffle* still persists.

4. OBSERVATION XII. de Vœlcker—under this head: Multiple blennorrhagic arthritis of the tarsus, shoulder, left sterno-clavicular and left tempero-maxillary articulations; treatment by the iodide of potassium.

It attacked a man of 30 years, of a bad constitution, of a very decided lymphatic temperament. He entered the 17th of Dec., 1867, in the *service* of M. Pidoux, at "La Charite." Towards the month of October, and for the third time, the blennorrhagic discharge had commenced, and the 10th of December, the first of the articular pains were manifested.

On his entrance to the hospital, we found his pulse slightly frequent; no heat of skin. On the part of the heart *dedoublement* (doubling) of the first sound at the base without impulsion.

22nd. Slightly febrile condition. Pulse frequent, at 110; and small.

30th. The patient walks with difficulty. His general condition is excellent. Still some rheumatismal pains towards the shoulder. The appetite and sleep are good; there is nothing now the matter with the heart.

5. OBSERVATION of M. Lorain, cited by M. Tixier in his thesis (page 58).

Mr. Lorain has recently given us the history of a patient who was under his case last year, at "Saint Antoine." The lesions were much more serious than in the case of M. Hervieux, and bringing them together we follow the different stages of alteration that the central organ of circulation may from thence undergo. It was the case of a man aged 29 years, of a good constitution, who had not had any rheumatic antecedents. He contracted the clap, which was accompanied by a very considerable discharge; he used injections, which brought about a notable diminution of this discharge; shortly afterwards he was attacked by rheumatic pains, which were general. These last subsided very soon, or at least greatly diminished, and at this time a cardiac complication was produced with *bruit de souffle* and circulatory troubles, which gave rise consecutively to symptoms of mitral insufficiency with considerable hypertrophy. Later, there appeared serious general troubles; the patient left the hospital in a desperate condition, and died some days afterward. M. Lorein believes himself able to attach all these phenomena to the fact of the blennorrhagia.

6. OBSERVATION VIII. of Dr. Tixier (thesis, p. 82), under this head: Blennorrhagia articular symptoms, Repetition, Sciatica, Pericarditis.

A——, aged 24 years, employed in mercantile pursuits, entered the "Maison de Sante" March 8th, 1866,—*service* of M. Cazalis. He is a blonde, of lymphatic temperament; he has alwaays enjoyed good health. In the meanwhile, seven years ago, he had, for the first time, a slight attack of rheumatism which lasted ten or fifteen days; since then, he has never had any rheumatismal manifestation.

The 25th of February, an urethral discharge appeared. He took copaiba; eight days afterwards, he experienced acute pain in the articulations of the legs and arms; there was slight swelling and a little fever. Under the influence of proper treatment, the appetite was restored; the general condition was satisfactory; the discharge continued; he left the 20th of March.

He returned on the 27th; new pains. The 28th, the pain seized the whole length of the leg, following the direction of the sciatic nerve; no fever. April 4th, all goes well; the discharge has diminished. The 14th, he experienced general malaire; he has fever in the evening, and the next morning a feeling of oppression in the præcordial region declares itself. We have the symptoms of pericardial effusion; the cardiac sounds are dull, far off from the ear; at the same time they present a certain irregularity. The whole without a modification in the sound. Blister. Broths.

The fever disappeared, but the perturbation of the sounds and movements of the heart persist. The 21st, we prescribe a new blister and some digitalis. The 30th, the patient is much better; the feeling of præcordial oppression is dissipated. The next day he was again attacked by slight pains in the arms. The 10th of May, he no longer suffered and got up.

In all these cases there is no doubt as to the existence of a peri-or endo-carditis.

This affection was, perhaps, complicated by myocarditis in the case of M. Lorain. Their relations with blennorrhagia are likewise incontestable. But there is at the same time blennorrhagic rheumatism, of such a sort that we can believe that the cardiac serous membranes are only attacked consecutively to this last named disease, and that they depend only secondarily on blennorrhagia. The case we are going to report does not permit a doubt in showing a pericarditis following, without intermediation, an attack of blennorrhagia, and the blennorrhagia reappearing immediately when the pericarditis ceases.

The following is the *resume* of an observation which has been given to me by M. Grasset, *interne du service*. It was accompanied by judicious reflections. The observation was taken from day to day by M. Demandre, pupil of the *service*.

Tabaran (Alexis), Sapper of the 2nd Engineers, aged 21 years, entered the "Hopital St. Elvi," July 18th, 1871. He is a young man of fine constitution. Up to the time of the late war, he had always been well, save some attacks of clap which never brought on articular or other complications. During his captivity in Prussia, he had an attack of pneumonia, intermittent fever, and dysentery; under the influence of the humid cold to which they were exposed—all these soldiers laying upon the naked ground (our enemies did the same during the war, themselves), he felt some articular pains. This is the only time that he noticed rheumatic symptoms. In his youth, and before his captivity, he was subject sometimes to palpitations when he ran or climbed up steps too quickly. Such are his antecedents, related on his entrance to the hospital. At this time, he had a very bad diarrhea, which attracted from thence the most attention. But, two days afterwards, he felt acute constrictive pains at the base of the chest, and a sort of præcordial anguish.

The horizontal position is impossible; the patient rests sitting upon his bed. In the chest, there is only a slight bronchitis. As to the heart we feel by palpation a characteristic *fremissement;*

the dullness is more extensive, and finally we hear a beating or galloping noise perfectly defined. The systolic *bruit* was normal (may be a little blowing); the second *bruit* was a rubbing one, *post systolic*, occupying the short silence; the third *bruit* was the second normal tone. There was, at the same time, cephalgia and fever. Temperature 39.3 degrees; pulse full and resisting; 106 pulsations. The disease had its regular evolutions; from time to time, some increase in palpitations; syncope. The first day, I applied scarified cups; then I gave calmants and a little digitalis.

The 26th, the patient is certainly better; the temperature has become normal,—37.2 degrees. On our visit, he told us that he had this morning discovered, on awakening, a very abundant blennorrhagic discharge. He then said, for the first time, that he had had clap before his entrance to the hospital, that is to say, the same day his disease commenced. During all the time of the pericarditis, there was not found the least trace of the discharge (nothing on his shirt or drawers), and the 25th, in the morning, he was very much astonished to see it reappear.

Aside from that time, the signs of pericarditis completely disappeared, and the clap underwent its regular evolution. Without having in the heart appreciable stethoscopic signs, the patient is always subject to palpitations. The central organ is in the same condition that I spoke of on the day of his entrance to the hospital, the 19th.

August 6th. At 2 o'clock in the afternoon, violent palpitations were felt. These latter lasted all night and prevented sleep. They only disappeared at 7 o'clock in the morning. During this time, the blennorrhagic discharge was mitigated. August 7th. At my visit this morning, the discharge was insignificant; some palpitation as yesterday. Digitalis in potion; dullness on percussion over the præcordial region; on auscultation, the first sound is slightly souffle. Discharge almost nothing. Bromide of potassium, one and a half grains; digitalis. The night of the 9th was not passed well. He was not able to sleep, the palpitations being very strong; same state of discharge; digitalis. The 10th. Commenced urethral injections; palpitations are less strong. This condition is ameliorated each day, and on the 15th, the patient is convalescent. A complete examination made this day, shows the discharge very nearly dried up. On the part of the heart, no palpitation. On percussion, nothing abnormal. On palpation, we feel above all the systolic bruit, and auscultation shows this latter slightly clear.

Here is the case: A pericarditis beyond doubt, succeeding a blennorrhagia. This latter arrested momentarily by the affection of the heart; recommenced its evolutions only when the pericarditis had ceased. I saw that these same conditions united the arthritis and discharge, which makes it called "blennorrhagic arthritis." The rheumatic pains, experienced one time only by the patient during his captivity, cannot explain this pericarditis coming on a long time after an attack of rheumatism; and then the heart of the patient to-day presents no organic lesion, no remains of an old affection. The palpitations he experienced were purely nervous; he has always felt them; may be they were more painful at the beginning and during the course of the pericarditis. It is very certain, since the patient is now cured of his pericarditis, but he remains subject to palpitations. Then, if the pericarditis was due to rheumatism, or to any other cause, how explain the attack of blennorrhagia after its cure? It is very evident that the patient could not have contracted blennorrhagia anew while in the hospital. M. Grasset tells us that he finds it very natural to admit, that the old blennorrhagia, which is displaced for an instant, localizes itself upon the pericardium, and is returned to the urethral mucous membrane when the pericarditis has been cured.

I avow that our observation is a type of that phenomena called a *metastasis*. But this big word explains nothing, and the developments that one might add to it approach more or less the hypothesis of M. Grasset. This does not satisfy me. I prefer to remain in doubt. In medicine, the admission of our ignorance is more profitable to science than the exaggerated pretensions of wishing to explain all. It is necessary to say our observation, an ideal example of metastasis, would certainly please M. Swediaur, the author of this theory—defended afterwards by Lagneau, Trau, and Cullerier. But it may satisfy the *humoralists*, who admit of the absoption and transportation of a virus through means of the circulation. As for the *solidists*, they show it as an example of uretho-serous sympathy. To me sympathy means no more than metastasis, and as for the humoralists' theory, M. Rollet has sufficiently refuted it, so that it would be useless to return to the arguments presented by the physician of Antiquaille. A curious thing, which shows that theories purely speculative are very accommodating. This same observation brings an argument to M. Peter and those who raise blennorrhagia to the rank of a diasthetic disease, or of a specific affection. The same with Pidoux, who saw, in these serous manifestations, after blennorrhagic infection, a constitutional alteration—an alteration that the Germans have called *lues gonorrhea*. To Lorain, this would be a manifestation of genital rheumatism, the effect of an acute and transitory diathesis. *Tot capita*, *tot sensus*. It is very difficult to choose, in the midst of these views of different minds, sustained with talent, and each one supported by cases presented according to the ideas of their authors.

I have not the inclination to admit in preference the one or the other; but in order to discuss the manner of production of pericarditis in the case which occupies our attention, it seems best to bring in certain very important remarks. I will present, therefore, the ideas on this interesting question. Fournier (*loc cit*) remarks that he has seen arthritis brought on by catheterism and " that there is no need of admitting a general and virulent cause for certain morbid states of the urethra becoming the occasion of articular fluxions." The blennorrhagia does not enjoy then alone the privilege of awakening a rheumatic diathesis or exciting serous lesions. And Lorain has seen rheumatism develop itself on the occasion of an affection of the genito-urinary apparatus, the puerperal state. Besides, M. Charcot has said in the *Bulletin de la Societe medicale des hopitaux :* " Troubles in the accomplishment of the uterine functions often provoke the development of ordinary forms of rheumatism; in this manner, chlorosis and dysmenorrhea are noted among the ordinary causes of nodate rheumatism. Todd relates a case of pseudomembranous dysmenorrhea with nodate rheumatism. I have myself reported in my thesis several observations of suppression of the menses having been the starting point of nodate rheumatism." In the clinical conference, of which I spoke further back, Grisolle saw in blennorrhagic arthritis a specific arthritis. He compared it, not as Dr. Chambers has said in his " Lectures Chiefly Clinical," with pyemic arthritis, but rather with the scarlatinous arthritis. Evidently there is no scarlatinous rheumatism;

admitting the latter, it does not seize sufficiently the pathogeny of eruptive fevers, and of scarlatina in particular. Now, in the latter, there are often cardiac complications; above all, endocardis, as have shown Bouilland, Graves, Trousseau, West, Martineau, and Bucquoy. Martineau has shown these two particularities, that at one time the endocarditis comes on during the course of a scarlatinous eruption, free from all articular complication; at other times in the convalescence, or with the articular pains. M. Grisolle—would he see in our case a pericarditis comparable to scarlatinous pericarditis?

In order to determine this long discussion, and to consider the question under all its aspects, I remember that our patient, on his entrance to the hospital, had considerable diarrhea, which consequently wholly attracted attention. It was this which led him to enter the hospital. No bloody stools. Now, we have observed very often a certain conjunction between articular fluxions and dysentery, in the countries where this affection is common. Stoll has advanced the theory, that the dysentery which prevailed in his time epidemically, was a *rheumatism of the intestines*, coming on under the influence of the causes which produced rheumatisms towards the end of summer and autumn. And it is well demonstrated, I believe, that all the causes that may produce fluxions upon the articular serous membranes may attack, at the same time, the splanchnic serous membranes. It was Galen who sought to establish a distinction between catarrh and rheumatism, the first seated in cavities, the second attacking the articulations. It was a dichotomy of the theory of Hippocrates, which created catarrhs or fluxions. The idea of the old man of Cos was certainly more philosophical.

It is necessary in these cases to admit a pericarditis coming on under like circumstances to those indicated by Stoll, and of which the presence, the febrile movement which it accompanies should be suppressed momentarily by the blennorrhagic discharge. In order to finish, and give my opinion upon the case that I observed, I will recall the anterior palpitations, proving in this patient a sort of predisposition of natural weakness. The ancients would have said a "pars minoris resistentie." It is this which has determined the localization, afterwards the inflammation of the pericardiac serous membrane.

Let us say as to general conclusions—

1st.—Blennorrhagia may be complicated with inflammation of all the serous membranes.

2nd.—The particular localization in each case is determined by the predisposition of the individual.

3rd.—Cardiac complications are very rare.

4th.—The myocardium (may be), at times the endocardium, but above all the pericardium, are attacked.

SELF POLLUTION IN CHILDREN,

By H. P. AYRES, M. D., of Fort Wayne, Indiana.

[Read before the Indiana State Medical Society.]

Man is capacitated for high moral and social positions; as these principles permeate his character, he approximates the "likeness" of Deity; as they are supplanted by vice and degradation, he sinks to a brutish existence. Degradation in men does not appear so loathsome as it does in children; for the child should ever have a halo of joy and hope around it, and the blight of pollution should not mar its day. The work of the philanthropist and physician would be pleasant if their duties only related to the sick and wounded among the good, but when they must descend to contend with vices, and vile pollutions of the body, and with their results, there is something repulsive and forbidding to every sensitive mind. This feeling does not arise simply from the contact with filth itself, but is felt in such cases where the mind or soul sinks into a vortex of ruin with the body, and the hitherto intellectual being becomes a driveling, repulsive, demented idiot. It is when the mind by vice is torn from its high throne of godlike superiority, and shames the lowest order of the brute creation in knowledge and virtue, that the heart recoils and turns away. But while we shrink from such contact and loathe the subject, duty overrides our objection, and we enter upon it for the good of those who are or may be slaves to self pollution. Masturbation, or self pollution, is among the prevailing evils of our land. Drunkenness, adultery, and fœticide are considered blighting vices or crimes; the press, philanthropy, and religion raise their voices against them, but the vice of self pollution among children is quite forgotten, is seldom mentioned or referred to by these public guardians of morality, and the viper is permitted to fatten upon some of the brightest buds of intellectual promise in our homes, leaving but a skeleton of that which was beautiful and lovely.

In a subject of so much importance, and embracing such a wide range of thought, we can only notice three or four points, and give them but a limited discussion.

Our principal object is to call attention to the vice of self pollution among children, yet we may occasionally be general in our observations. We sometimes forget that mere children may become addicted to this vice, and not unfrequently attribute to other causes sickness, which is the outgrowth of masturbation alone. I have had cases in which the symptoms of disease resembled those of onanism, and yet the childlike form of my patient almost forbade the thought of such a habit. I have sometimes been sorry to receive an affirmative answer from such children, in confirmation of my suspicions, or to communicate the fact, when necessary, to unsuspecting parents. It may be asked, is there a sufficient maturity in the child to experience all the sensations of puberty? We answer no; yet there is a sensation of such a character that the health and brain of the child are affected, and where a child forms the habit the most disastrous results follow. What this sensation is, or what the secretions are, if any, would occupy too much time to discuss, and fall short of our present purpose.

SYMPTOMS.

The symptoms are, as in other diseases, numerous, and as varied in their types as are the constitutions and circumstances under which the vice exists; yet the symptoms are generally so marked that we are seldom mistaken.

I have remarked, the vice commences in children at a very early age, before there is much development of muscle or hardening of the bones; all parts of the organism are in a formative state; the various functions of nutrition and consolidation are busy, perfecting the structure that the subject may be a perfect man, not only in body but in mind; thereby presenting a harmonious whole, worthy the divine hand from which it originated, Any shock to this growth and development, and especially that of masturbation, must for a time suspend the process of nutrition; and a succession of such shocks will blast both body and mind, and terminate in perpetual vacuity. It has undoubtedly come under the observation of all physicians of any considerable experience, that many children fall victims to this terrible evil. From health and vigor, and intelligence and loveliness of character, they became thin and pale and cadaverous; their amiability and loveliness departed, and in their stead irritability, moroseness and anger were prominent characteristics. The quiet demeanor was exchanged for restlessness, sleeplessness' and excitement; instead of the playful, cheery, blythesome child, it forsook its accustomed plays and joyous sportings for seclusion, or perhaps melancholy. Instead of buoyant hopefulness, there were gloomy anticipations; and the past, instead of being remembered with childish gusto, was dwelt upon with mopish coldness. The forehead, once high and intellectual, appeared lower and narrower; the eyes, once beaming with joy, were cold and unsettled, or with shame dropped from and avoided the gaze of the nearest and dearest friend; the once full round face lost its charms, the tongue was slow. of utterance; the joyous bound of childish vigor changed to a slow, pensive, tottering gait; the whole body changed, and the child appeared as a monument of some desolating plague. The mind failed with the body; this purer principle of our nature can not shine in a tenement made uncongenial by vice and pollution. The desolation of self pollution does not stop in the ruin of the child; one of the lights of a home has gone out; the hearty boisterous laugh, the noisy clattering feet, the singing and whistling are hushed; the stillness of a burial day reigns in the household, for a pall has been drawn over its joys and charms. I have in my memory a beautiful child; lovely, amiable, fascinating, and joyous in all the outbursts of life. I have seen all these pleasing characteristics fall before the blight of masturbation. I saw the tints and charms of young life, in a blithesome child of fifteen, steadily fade away; the plump, full face become cadaverous; the limbs become bony, skinny appendages to a wasted body; mind and body sank, until the remains of her once beautiful person found their resting place in the grave. I have recently had under my care two boys, about twelve years old, who have been epileptics from onanism; another case of a young man nearly blind with amaurosis; another, in which the person is entirely blind, without any hope of sight. Children, five, ten, or fifteen years old, often become slaves to the vice. The curse invades the home of many unsuspecting parents; it carries its blight into our schools and places of learning; with remorseless greed it destroys the souls and bodies of many sons and daughters. Children addicted to the vice carry the marks of their degradation in their faces or their actions.

Lallemand observes: * "However young the children may be, they get thin, pale, or irritable, and their features become haggard; their sleep is short, and most complete marasmus comes on; they may die if their evil passion is not got the better of; nervous symptoms set in, such as spasmodic contraction; or partial or entire convulsive movements, such as epilepsy, eclampsia, and a species of paralysis, accompanied with contraction of the limbs." The same author further remarks: † "When a child who has once shown signs of a good memory, and of considerable intelligence, is found to evince a greater difficulty to retain or comprehend what he is taught, we may be sure that it does not depend upon the same cause, only the intellectual functions become in the most marked manner enfeebled." ‡ "However young they may be, children lose flesh, and become pale, irritable, morose, and passionate; their sleep is short, disturbed, and broken; they fall into a state of marasm, and at length die, if not prevented from persevering in their course. . . . But in infancy, more or less severe nervous symptoms are superadded, which are not found in those who have commenced the practice after puberty, or which at least are not in the latter case manifested to the same extent. Such are spasms and partial or general convulsions, eclampsia, epilepsy, and paralysis, accompanied with contraction of the limbs. These phenomena were present in all the children whose cases I have noticed, and numerous similar facts have been published by different authors."

While such are some of the common symptoms of masturbation, there are others which precede them, and are observable from the inception of the vice to the sad an unhappy termination of many cases.

The appetite suddenly or slowly becomes capricious—at one time insatiable, and at another entirely wanting, or only satisfied with some dainty and indigestible food. The meal is followed

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* Vol. 1, p. 462.

† Page 165.

‡ Lallemand and Wilson, p. 153.

by distress or collicky pains; the child is restless, throwing itself on the floor, or assuming a mopish, abstracted condition; preferring a silent corner or lonely retreat to the usual rompings of children. Sometimes an early symptom is the disagreement of the food with the stomach, thus injuring the process of digestion, cutting off the supply of nutrition; and, as an inevitable result, the child loses its flesh and becomes pale and weak. But such results may not always attend this vice among children. Some retain all their flesh, and for a while all their vigor, and perhaps their cheerfulness. The first symptom is an occasional stiffening of the child while in bed, which only lasts a half minute; this symptom gradually increases, until a spasm is fully developed. If this state is permitted to go on, the attacks commence in the daytime, and under any circumstances. At first, by a sudden stopping of the child, a stiffening of the arms and body; the eyes become fixed, the face has a vacant expression; but, in a moment, the child seems to awake, and silently passes on. These attacks become longer, and their interval shorter, until the subject becomes a confirmed epileptic.

Occasionally we see the first symptoms in the hurried and laborious breathing of the child; it avoids the excitement and play, the running and rollicking of other children, and when compelled to move rapidly the effort is followed by repeated sighing, from an inability to fully inflate the lungs.

Sometimes the heart sympathizes largely with the general debility, leading us at times to suspect an organic disease of the organ—a supposition, however, easily corrected, as the throbbing and irregularities of the heart are traceable to the drain and strain ubon the nervous system. In such cases, there is great loss of muscular strength; the body and limbs tremble; there is unsteadiness in the body, an irregularity and uncertainty in walking, so much so that the child stands unsteadily, or moves with a tottering gait. Patients long addicted to self pollution sometimes lose sensibility in one hand or foot, or a portion of the face or chest. Pains are experienced in different parts of the body, closely resembling those of rheumatism, but are different in character; they generally run the course of the nerves, but are usually felt in the lumbar or sacral regions. These pains are most severe in the morning, but abate as the day advances.

The eye is so intimately connected with the nervous system, and so quickly suffers from any excess, that we are not surprised to see the conjunctiva deeply inflamed, the tears standing on the margin of the lids, and the corners of the eyes filled with matter. Masturbation soon affects the globe of the eye; the pupil enlarges, the vision becomes dim, objects are seen double, and soon complete amaurosis supervenes.

Unnatural wakefulness in children may be symptomatic of self pollution. The child who romps and plays through the day sleeps sweetly and soundly through the night. If, however, they are wakeful and silent—and other concurring symptoms being present—we may well be on our guard in reference to the patient, before a brutalizing vice has been fully developed. Dr. Wilson mentions a case of a child seven years old, who for months laid awake to practice this debasing vice, while other children slept. Children who follow or habituate themselves to masturbation are usually wakeful, yet sometimes they may have a lethargic or heavy sleep. The memory soon shows symptoms of defectiveness; the child becomes forgetful, careless and stupid; its duties, obligations, and songs are quite forgotten; the tongue is thick, the articulation indistinct; and the once brilliant child sinks rapidly into vacuity or idiocy. Dr. Wilson says: * "I have seen children, previously very intelligent, almost suddenly fall into a state of idiocy, the cause of which was little suspected on account of their early age, the other functions not suffering proportionately. When a child, after having afforded evidence of strong intellect and memory, experiences from day to day more difficulty in retaining what he is taught, we may rest assured that this does not arise from any indisposition, or from idleness, as is often supposed. On the other hand, the slow but progressive derangement of his health, his constantly increasing loss of activity and application, arise from the same cause. The intellectual faculties are simply the first to feel disorder, and show it more than others. In such cases, diminished aptness for learning ought to be held quite sufficient evidence to induce inquiry and careful watching. Correct information would clearly show why some children cease to carry off the the prizes of their class; and why, at a later period, some young men fail in studying the law, medicine, or the sciences, after having successfully commenced such studies." We would willingly leave this part

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* Wilson on Spermatorrhea, p. 290.

of our subject here, and permit each person to gather for himself the volume of symptoms which follow in the wake of this destroying fiend, but duty requires us to refer to symptoms of masturbation in insanity.

Several writers on the mind, in treating of insanity, give the same symptoms we find in those children and youth who indulge in self abuse: melancholy, solitude, apprehension of evil, distrust of friends, are among the evidences of approaching aberration, all of which are frequently the outgrowths of a secret vice, formed while in childhood.

The recital of the symptoms in this terrible vice is sickening; no part of the physical system escapes; many symptoms of other diseases are assimilated in results growing out of self pollution. The sin is so deep and blighting, so wide-spreading in its destruction of soul and body, that God and nature and men revolt at its presence, and look upon it as one of the darkest blights which can fall upon the unsuspecting child.

There is another species of this vice which may be called *moral onanism.* It is possible without bodily pollution; but it exhausts in a dreadful manner also. I here allude to heating and filling the imagination with obscene and lascivious ideas, and a vicious and habitual propensity to indulge in such thoughts. This evil may at length become a real disease of the mind; the imagination is then totally corrupted, and governs the whole soul; nothing is interesting to men subject to it but what relates to lewdness; the slightest impression of that kind excites in them a general fervor and irritation; their whole existence is a continual fever, which weakens the more as it always stimulates without gratification.

CAUSES.

Dr. Hufeland, in his work on the "Art of prolonging life," after speaking of the various means of shortening life, says:

"It appears that between both these organs, that of the soul (the brain) and those of generation, as well as between the two functions, that of thinking and that of generating, the one spiritual and the other physical creation, there is a very intimate connection; and that they both require the noblest and most refined part of the vital power. We find, therefore, that they both act alternately on each other, and have a mutual and contrary effect. The more we strain the mental faculties, the less vigorous will be our power of generation; the more we stimulate the generative power and waste its juices, the more does the soul lose its faculty of thought, its energy, its acutenesss, and its memory. Nothing in the world can so much and so irretrievably ruin the brightest mental talents as excess of this kind."

If Hufeland's observations were true in his day, may not the same be said with greater truth of the present time, when the mind of the child is fed by the stories and incidents of thoughtless, obscene servants, illustrated libertinism, or the corrupting "yellow literature" of our book stores. Many children, from the earliest development of their intellectual powers, are surrounded by influences calculated to blast all future hopes and prospects, and fit them rather for dens of wickedness and a world of despair.

The child, like the man, is influenced by surrounding circumstances, whether they are good or bad. The natural relish or congeniality of our natures for the bad, leads the vast multitude in that direction. The French Revolution, and the revolution of Seventy-six in the United States, were not so productive of immoral sentiment among all classes as is the so-called literature of the present day. The demoralizing, corrupting sentiments are so inlaid with marvellous and thrilling narration that the poison is swallowed without a moral antidote, and the whole moral man is tainted if not ruined by the blighting contact. If what is called "yellow literature" were the only destroyer of a high moral status, we might be silent, for parents can control it; but there are other streams more corrupting and disastrous, from which children daily drink in the most copious draughts, and thus silently and successfully undermine all moral teachings, thereby destroying not only the future promise of a young and brilliant mind, but blasting the fond anticipations of many parents.

The majority of our bookstores and paper stands sell the most corrupting trash, illustrated with pictures of voluptuous females, which a few years ago would have shamed the "Five Points" of New York, and caused their expulsion even from such a hell. There is a law prohibiting the sale of lascivious books and pictures; once they could only be sold clandestinely, but now nude female forms, lascivious positions of male and female, representations of scenes in brothels, of debauchery, of dissipation, and murder, are exhibited without shame or hindrance. But this is not all. In these stores, and around these stands, are little boys and girls eight, ten, or fourteen years old, drinking in these seeds of corruption, which will germinate with a luxurious growth, and shoot out their poison like the fabled upas or the deadly adder, destroying not only the child in which it takes root, but from it sending forth a baneful poison to pollute and ruin many others. Such are some of the causes operating in towns and cities upon the minds of children, and producing the blighting curse of self abuse or masturbation, which is annually destroying thousands of youth, by unfitting them for any physical or intellectual employment.

Dr. Wilson relates a case of self pollution, of a most melancholy nature, in a young man of high intellectual and social promise, who gradually sank to the lowest depths of beastly pollutions, and all traceable to the reading of a single book. He says:

"I have related a case, a few pages back, in which nocturnal pollutions were caused by reading an obscene book. I have seen a multitude of cases of this nature. From these, I conclude that in certain very excitable individuals, reading such books, the sight of voluptuous images, lascivious conversation—in a word, all things that can excite or keep up irritation in the spermatic organs, are capable of producing the same effects as actual abuse, even when the will is sufficiently powerful to prevent the thoughts from leading to the acts."

Dr. Howe, of Boston, Mass., in one of his reports on idiocy, remarks: "In some families which are degraded by drunkenness and vice, there is a degree of combined ignorance and depravity, which disgraces humanity. It is not wonderful that feeble-minded children are born in such families; or, being born, that many of them become idiotic. Out of this class domestics are sometimes taken by those in better circumstances, and they make their employers feel the consequences of suffering ignorance and vice to exist in the community."

There are cases recorded where servant women, who had the charge of little girls, deliberately taught them habits of self abuse, in order that they might exhaust themselves, and go to sleep quietly! This has happened in private houses as well as the alms houses; and such little girls have become idiotic!

The mind instinctively recoils from giving credit to such atrocious guilt; nevertheless, it is there, with all its hideous consequences.

On the subject of insanity, in Dr. Coplands's Dictionary of Practical Medicine, the writer, speaking of its causes, remarks: "Of these, the most influential are masturbation and libertinism or sexual excesses, sensuality in all its forms, and inordinate indulgence in the use of intoxicating substances and stimulants. The baneful influences of the first of these causes is very much greater, in both sexes, than is usually supposed; and is, I believe, a growing evil, with the diffusion of luxury, of precocious knowledge, and the vices of civilization. It is even more prevalent in the female than the male sex; and in the former it usually occasions various disorders connected with the sexual organs: as leucorrhea; displacement of the uterus; difficult, disordered, suppressed, or profuse menstruation; both regular and irregular hysteria, catalepsy, ecstacies, vertigo, and various states of disordered sensibility, before it gives rise to mental disorder. In both sexes, epilepsy often precedes insanity from this cause; and either it or general paralysis often complicates the advanced progress of the mental disorder, when thus occasioned. Melancholia, the several grades of dementia, especially imbecility and monomania, are the more frequent forms of derangement proceeding from a vice which not only prostrates the physical powers, but also impairs the intellect, debases the moral affections, and altogether degrades the individual in the scale of social existence, even when manifest insanity does not arise from it."

In the Thirteenth Annual Report of the Massachusetts State Lunatic Asylum, voluntary insanity is attributed to two causes —intemperance, and masturbation or secret vice. "The secret vice produces the very worst forms of insanity. Such patients become degraded animals, so entirely abandoned to the habit that hopeless dementia generally follows." When the mind is thus dethroned, and there is no appeal to the person through the moral sense, the brutish vice holds the ascendancy over the body, until the former human child becomes degraded below the brutes.

It is a matter of interest to know how young children may be subjects to this vice.

Undoubtedly there can not be a discharge from the child of the same character as there is at the time of puberty; but that they are susceptible to an excitement of a similar character, which in all its effects is as ruinous as absolute self pollution, there can be no doubt. The evidence to substantiate the position is so abundant, and of such a high character, that argument is unnecessary; the observations of Deslandes, Halle, Lallemand, Acton, Wilson, and the confesssions of Rousseau, are sufficient to satisfy any doubts. The precise physiological character of such excitement in children, and the effect upon the brain and nerves, are unknown, and whatever theories may be advanced, the entire subject is yet open to investigation. The subject has been referred to in another part of this paper, in which nurses have taken advantage of mere infants to titillate the organs of generation, that they might be quieted or go to sleep.

Children of a very early age may be seen tickling their genitals in order to produce some pleasurable sensation. Lallemand mentions one, who commenced at four years old, and soon became a perfect slave to the vice. I know many will ignore this position, and many parents will be indignant at any insinuation involving the virtue of a child, but it makes the fact no less patent. The names I mentioned a few lines back agree that children may commence at four years old, more frequently at six or eight, still more frequently between eight and sixteen. It is not necessaay that a child should or does use its hand upon the genitals, in order to produce the sensation and all the evils of masturbation. The effect may be brought about by certain positions, such as sleeping on the belly, getting astride some bar or stick, some position on chairs or benches. A case is mentioned in which the child resorted to sliding down the balustrade or stairway, the friction brought on emission; another child pulled out the navel, which produced a pleasurable sensation without emission, but all the sad results of masturbation. Another boy suspended himself by the arms, from doors, casings or whatever would answer his purpose, by which means he accomplished his gratification, and also destroyed his health; another titillated the organs of generation with sticks and straws; another would sleep upon his belly; thus children, early and unconsciously, adopt measures which do not attract the attention of parents until wasting health leads to inquiry and investigation.

EFFECTS.

There are many young persons, male and female, who commenced life with more than an ordinary share of natural ability; they prosecuted their studies with great success, and gave high promise of being ornaments to the world, but are now moping, slavering idiots of the lowest order, or inmates of some insane asylum. Self abuse has so far overstrained and dissolved the nerve tissue, that the body is no longer a congenial abode for the mind. The harmony is broken; the refrain, however sweet, finds no response in the soul, for the nerve cords are unstrung, and the sweet harmony of mind and the senses is no longer heard. The person is insane.

Dr. Lallemand remarks: "How much glory has been lost, how many a noble career has been blighted, how many an unexpected suicide, and how many a fit of despair would cease to be an impenetrable mystery to families and medical men, did we know better than we do the influence of excessive fatigue on the brain, on the production of involuntary seminal emissions, and that still more powerful action of these enervating evacuations, reacting on the cerebral functions!" The evidences of the effects upon the child are not always immediately developed. When there is a vigorous constitution, without any congenital or mechanical injury, the habit of masturbation may be indulged in for months without any special development of its injurious effects, until the patient is suddenly seized with spasms and all the developments of the outcropping evils of masturbation. There are other cases of slow development, in which the spasm is only a sudden stopping of the child, a fixedness of the eyes, a momentary rigor, all only lasting a few seconds, and the child moves on apparently unconscious of the fact. But these milder forms of disease soon develop into the full manifestations of this terrible evil, and in either emergency the mind and body soon fall in the general ruin.

Dr. Lewis says: "Young persons addict themselves to this practice without knowing the enormity of the crime, and all the consequences which physically result from it. The mind is affected by all the diseases of the body, but particularly by those arising from this cause. The most dismal melancholy, indifference, and aversion to all pleasures, the impossibity to take part in conversation, the sense of their own misery, the consciousness of having brought it upon themselves, the necessity of renouncing the happiness of marriage, all affect them so much that they renounce the world—blessed if they escape suicide."

Dr. Howe, speaking of the evil of masturbation, says; "There is another vice, a monster so hideous in mien, so disgusting in feature, altogether so beastly and loathsome, that in very shame and cowardice it hides its head by day, and, vampire like, sucks the very life blood from its victim by night. What is the loss of property, or the poison of serpents, compared with that pollution of body and soul, that utter extinction of reason, and that degradation of beings made in God's image, to a condition which is beastly, and which is so often the consequence of excessive indulgence in this vice. It can not be that such loathsome wrecks of humanity, as men and women reduced to driveling idiocy by this cause, should be permitted to float upon the tide of life without some useful purpose; and the only one we can conceive is that of awful beacons to make others avoid, as they would eschew moral pollution and death, the course which leads to such ruin." As we have before quoted, persons upon whom this crime is confirmed become lost to all reason, to all moral sense, to all shame—idiots who have but one thought, one wish, one passion, and that is the further indulgence in the habit which has loosed the silver cord even in their early youth, which has already wasted, and, as it were, dissolved the fibrous part of their bodies, and utterly extinguished their minds. If only such lost and helpless wretches existed, it would be a duty to cover them charitably with the veil of concealment, and hide them from the public eye, as things too hideous to be seen; but alas! they are only the most unfortunate members of a large class. They have sunk down into the abyss toward which thousands are tending. The vice which has shorn these poor creatures of the fairest attributes of humanity, is acting upon others, in a less degree indeed, but still most injuriously; enervating the body, weakening the mind, and polluting the soul. A knowledge of the extent to which this vice prevails would astonish and shock many. It is indeed a pestilence which walketh in darkness, because, while it saps and weakens all the higher qualities of the mind, it so strengthens the low cunning and deceit that the victim goes on in his habit unsuspected, until he is arrested by some one whose practiced eye reads his sin in the very means he takes to conceal it, or until all sense of shame is forever lost in the night of idiocy, with which his day so early closes.

Dr. Hufeland, speaking of the effects of masturbation, says: "Horrid is the impression stamped by nature on such an offender! He is like a faded rose, a tree blasted in its bloom, a wandering skeleton. All his fire and spirit are deadened by this detestable vice; and nothing remains but debility, languor, livid paleness, a withered body, and a degraded soul. The eyes lose their luster and strength; the rosy complexion of youth vanishes, and the visage appears of a pale white leaden color. The whole body becomes affected, and sensible to the slightest impression; the muscular power is lost; sleep brings with it no refreshment; every movement is attended with torture; the legs can no longer support the body; the hands tremble; aching pains arise in all the limbs; the faculty of thought is deranged, and cheerfulness is banished. The unhappy sufferer speaks little, and as it were only by force; and all his former liveliness of mind is depressed. A youth endowed by nature with genius and talents becomes dull or totally stupid; the mind loses all taste for virtuous and exalted ideas; and the imagination is altogether corrupted. The slightest circumstance respecting a female excites in him desire, shame, horror, and repentance; and despair of his evils being cured renders his misery complete. The whole life of such a man is a continued succession of secret reproach; painful sensations, arising from the consciousness of having brought upon himself internal weakness; irresolution, and disgust of life; and it need excite no surprise that such an unhappy wretch should at length become a self-murderer; for no man so is much exposed to suicide as an onanist."

If more demonstrative evidences of the vile effects of masturbation were asked, we might refer to the insane asylums in all parts of this country, and indeed in the entire civilized world. The reports of these institutions fully confirm the hideous results of the vice. In our own State, in one report of our Insane Asylum, there were 159 cases of masturbation in 4,431; in another, 76 in 2,587; in another, 20 in 570; in another, 21 in 739; in another, 41 in 1,500; in another, 28 in 1,000.

In the Twelfth Report of the Massachusetts State Lunatic

Asylum, there are 139 cases of self pollution mentioned; in the Thirteenth, 145. I have examined reports from other States, and find a large per cent. attributed to this cause. But the melancholy reflection remains, that while so many are sent to our insane asylums, the great multitude of sufferers remain in their degradation at their homes, and will continue to pursue their loathsome vice until they are rescued or sink into their graves.

Hardly a newspaper is published in the country, but it records the death of some young persons by suicide. The frequency of these announcements, and the increasing number of self murderers, may well awake the solicitations of philanthropists, and induce an investigation into the causes of such a state of things. There might be a shadow of excuse for the old and forsaken, the debauched and wrecks of mankind to desire death, but none for the warm-blooded, comely, companionable youth.

The evidences are abundant wherever examinations are made, and the physician who has not directed his attention to it will be astonished at the extent of this field of observation. The most deplorable and disastrous effects are all around: idiocy, dementia. monomania, catalepsy, paralysis, deformity of limbs, diseased eyes, blindness, loss of health, of life and soul. But enough has been said to satisfy the most incredulous that the effects of self pollution are terribly disastrous to children, and the effort to save them from such calamity is worthy any effort or sacrifice that patients, physicians, or philanthropists can make.

However much we may wish to conceal the fact, and draw over our seminaries of learning and common schools the mantle of pity or concealment, the facts are notorious that the vice exists in many, if not all, to a fearful extent. It may be a matter of policy with teachers and parents to cover up such a ruinous iniquity; but why cover up the destructive fire, which will assuredly break forth in a fearful and deadly conflagration?

If such a state of things exists, and parents and teachers and guardians are ignorant of it, it neither lessens the evil nor mitigates the wrong. The knowledge of such evils, the tendency of the mind of the young, either instinctively or from tuition, to practice such vices, should induce them to be faithful and true guardians, and save the young from an evil which may destroy both body and mind.

Many parents and teachers will at once repel any such insinuation; they are so thoroughly convinced of the purity and chastity of those over whom they are guardians, that they are indignant at such suggestions, and yet it may be true of their wards as of any other. The secresy and concealment of children under such circumstances is often most effectual, and nothing but a well arranged plan will detect the vice.

Dr. Howe, in one of his reports, says: "Many a child, who confides everything else to a loving parent, conceals this practice in its innermost heart. They strive to cheat and deceive by false appearances; for, as against this darling sin, duty, conscience, and religion are all nothing. Many a fond parent looks with wondering anxiety upon the puny frame, the feeble purpose, the fitful humors of a dear child, and, after trying all other remedies to restore him to vigor of body and vigor of mind, goes journeying about from place to place, hoping to leave the offending cause behind, while the victim hugs the disgusting serpent closely to his bosom, and conceals it carefully in his vestment."

The observation and testimony of Dr. Howe is sufficient to sustain the charge against seminaries and schools, but his testimony is sustained by the evidence and observations of thousands who have passed through such allurements and vices.

The portraiture of self abuse is sad and repulsive to every finer feeling, and were we only permitted to look at its dark and cheerless contour, carrying away, as it does, the brightest hopes of thousands of our youth—were we compelled to listen to the pitiable sorrows of patients and friends, and see no ray of light, we might well dispair of the future well-being of the children of those families; for the blackness and darkness would grow deeper and heavier, until every sound of joy would be hushed in silence. But there is a relief; the picture, through drawn in dark colors, has its rays of light, and joy, and hope.

Were we strictly treating this subject in a medical point of view, we would refer to the various tissues which, when diseased, aid or are causes in the production of self pollution; but, as our aim is to interest public opinion in this matter, we omit noticing them; they are familiar to the mind of every physician.

TREATMENT.

The prevention or cure of masturbation, self abuse, self pollution, or onanism, is the great desideratum all wish to reach.

While such considerations are repulsive, and we instinctively shrink from the knowledge or consideration of them, it is ever an act of wisdom on the part of the parent or physician to check the evil, whatever may be the surroundings of the child. While we would heartily disapprove of any restraint which would burden the life of the child or restrain its pleasure, we would insist on some supervision to prevent the appearance of the evil, and think this supervision should commence at an early age.

The great point for our consideration is, how shall the habit of self pollution be corrected and prevented?

Can anything be done to stay its progress, and save the young men and women from the degradation which vice always brings with it? The means of cure, or prevention, have engaged the attention of the profession only to a limited extent, and but little has been written on the subject, yet it is highly worthy the combined efforts of every philanthropist.

As I have elsewhere remarked, there is a moral sense in every one who is guilty of self pollution, that tells him it is wrong. Nature does not permit this invasion of her citadel, from whence springs the life of the race, without giving a premonition to the understanding and to the body, that such invasion is made at the greatest peril, and will eventuate in the ruin of mind and body. There is an intuitive sense of wrong, which, if the child is properly approached, easily yields to the warnings of a friend. A candid, firm, friendly accusation has, in my experience, been the best way of approaching a child suspected of the vice. Children at an early age are good readers of character, so that frankness, with kindness, will win the confidence of a child quicker than hardship and reproach. The confidence thus gained with the child is of the most confiding character, which gives the friend or physician a great and valuable power over the child, and enables him to guide his patient in a more virtuous course, and save him from ruin.

Corporal punishment and degradation have been resorted to, but in no instance on record has such a course been successful, but rather the very opposite.

The first step towards prevention or cure, is to ascertain the possibility of a local exciting cause, such as ascarides, irritation of the rectum, urethra, bladder, or bowels, or any general or special derangement of the body, the effects of which would excite a desire for self abuse.

When such causes exist, it would be idleness to appeal to the child's moral sense, or put it under restraint. I need hardly add that in many cases when these local causes are removed, the patient at once forsakes the filthy vice without any desire to return to it. Another important inquiry is, to know whether the impulse to self abuse arises from any congenital taint, as there is indubitable evidence that the habit has been transmitted from parent to child; or whether it is the result of a depraved education; either case demands a careful consideration.

Lallemand says; "Steps should at once be taken to prevent masturbation, or the habit will become inveterate, and rapidly spread from one boy to another. Personal chastisement will not often avail. In the case of Rousseau, we know that flogging was the primary cause which excited emissions that finally became the bane of his life. In infants, we must attempt to correct the habit by the ordinary mode of muffling the hands, or applying a sort of straight waistcoat; and the most careful watching will often fail in correcting the habit when once it has been engrafted, or when emissions have produced those changes in the urethra and its appendages, which we have seen keep up the complaint, and react on the brain; or which, having at first excited the boy's imagination, react again through the brain on the genito-urinary system.

In the boy, it is of the utmost vital importance that the mind be directed into a different channel, and that every means be taken to check the secretion of semen. There is nothing so good as gymnastic exercises, regularly employed, and carried to an extent just short of fatigue. A taste should be encouraged for cricket, rowing, walking, swimming, and the usual feats of strength which are taught in a gymnasium. Under such training the secretion of semen will diminish; but still emissions will take place occasionally, until they finally disappear. If irritation or inflammation of the vesiculæ seminales exist, the appropriate remedies, to be hereafter spoken of, must be combined with gymnastic exercises. If we have reason to suspect any of the other local causes of irritation, such as stricture, hæmorrhoids, or fissure of the anus, these complaints must be at once attended to, without which we can not hope to cure the patient. I need not say that those interested in a youth should in the mildest but still in a firm way point out the consequences to which such habits lead; and he should be taught to look upon masturbation as a cowardly, selfish, debasing habit, one which precludes those who indulge in it from associating with boys of proper spirit, distinguished as they are for a love of manly amusement compatible with health.

Establish this feeling at the same time that the surgeon remedies the mischief that has been done by previous excesses, and the system soon rallies, and a watch need now only be kept on the general health of the patient.

It is from the fault of parents, and those who direct the studies of youth, not attending to the commencement of this evil habit, that many a man's future career, commenced under the most favorable auspices, has been thwarted, and his physical powers and growth checked, which, by a little seasonable advice and judgment on the part of those who are the guardians of youth, could have been avoided or remedied.

Dr. Howe remarks: "Nothing is more false than the common doctrine of delicacy and reserve in the treatment of this habit. All hints, all indirect advice, all attempts to cure it by creating diversions, will generally do nothing but increase the cunning with which it is concealed. The way is to throw aside all reserve; to charge the offense directly home; to show up its disgusting nature and hideous consequences in glowing colors; to apply the cautery seething hot, and press it to the quick, unsparingly and unceasingly. Acquaintance with such advice as this—such acquaintance, that is, as is gained by having it held up before the eyes in all its ugliness—can only serve to make it detested and avoided. Experience has shown that in ninety-nine cases in a hundred, the existence of the vice was known to the young, but not known in its true deformity; and that in the hundreth, the repulsive character in which it was first presented made it certain that no further acquaintance with it would be sought."

Dr. M. Wilson remarks: "The treatment of onanism demands more than common care, on account of the serious injury it causes to the strength and constitution of the sufferer. It arises usually at an age and under circumstances in which it is unlooked for and unexpected; and previous to its discovery has often obtained a hold on the individual that renders it more than usually rebellious to treatment. When the habit is once contracted, there is every inducement in the sensations of the patient to pursue it. This habit originates when the mind is not sufficiently developed to comprehend its fatal tendency. When the practice is discovered, the patient should be watched; he should not be left alone; and all opportunity of solitary seclusion prohibited.

"It is a prevailing opinion that the disease will prove of easy self correction when the mind begins to comprehend the degradation of the habit; and that as the child becomes older he will leave off the practice of his own accord. Nothing can be more fallacious than this supposition, and the reverse is more generally the case; the demand for the peculiar excitement becomes more urgent, and the moral disgrace lessens in his own eyes in proportion as the practice acquires an ascendancy over the mind. The endeavor to stay its progress, therefore, can not be too prompt or too energetic."

Other evidence might be adduced, but we presume the above is sufficient to give direction to the general treatment. We might also enter upon a strictly medical treatment of masturbation in its various phases, but the length of our paper forbids, besides, the treatment is generally known to physicians. My great object has been to call the attention of the profession to the subject, as it is undoubtedly too much neglected by physicians, as well as parents and guardians.

Whatever means may be resorted to, or appliances made, to cure or prevent this vice among children, the physician's counsel and advice should be of the most confiding and candid character.

If children are permitted by their legal guardians to enter all the associations which have a tendency to divert the mind from principles of purest chastity, if their associations are with the vile and corrupt, if they are permitted to be with servants or employees who are rude and vulgar, if obscene books and pictures, or books of a doubtful moral tendency, are the sources from which children draw their moral strength, if children are permitted to visit our book stores and paper stands, and from the nude and debauched representations of impurity drink in the poison which blunts all the finer sensibilities, if an approximation to such pictures is to be found upon the soaps and perfumes of the toilet table, if such books and pictures are permitted to be circulated in our schools and seminaries, what could be expected but that corruption would be painted on and fixed in the soul of the child, and be reflected in its actions, habits, and vices? The guardian who permits the seeds of vice to be sown in the breast of his charge, by any of the above means, may be guilty of sending forth upon society a blight and curse and pest—of putting in peril the entire life of a human being, and jeopardizing its future and eternal interests.

It is undoubtedly the province of the physician to call attention to this subject, but unless there is a concert of action with them on the part of parents and guardians, all efforts will fall to the ground as useless. The subject can not be treated with medicine alone; the physician, in this case, must bring to his aid the moral and social relations, as he is compelled to in many diseases. The moral sense must be brought to bear upon the question; the child, to be secured against the vice, must be educated to shun any and everything which partakes of obscenity or unchastity.

There should exist between the parent, child, and physician an unreserved confidence, that the child may become acquainted with the dangerous and cruel degradation of the vice of masturbation. Thus may we hope, when intelligence on this subject becomes more generally diffused, insanity, idiocy, and dementia will diminish; then will there be less sorrow, fewer tears, and a higher social and moral state among the youth of our land.

POST-MORTEM PARTURITION.

As a case of post-mortem parturition published on the 3rd instant, in the *Medical Press*, by my friend Dr. Swayne, is one of surpassing importance (especially) to Medical jurists, and as it has created intense interest, not only in this country, but also in England, and as I know many medical men altogether repudiate the possibility of such an occurrence, (indeed, I this day had a letter to that effect from a medical gentleman residing in Cheltenham,) I take the liberty of sending you two cases, which I have abbreviated from an article on the subject by Taylor, in Guy's *Hospital Reports* for 1864. They are identical with the cases given by Drs. Swayne and Lanigan. Orfila, in his *Medicine Legale*, also gives two cases, but in both the expulsion took place almost immediately (within a quarter of an hour) after death, and was probably caused by post mortem uterine contraction. With regard to the case of the poor woman, Mary McLoughlin, reported by Dr. Swayne, I have not now, nor had I at any time, a doubt but it was a case of post-mortem fœtal expulsion, from putrefactive (abdominal) gaseous distention. I would earnestly and respectfully invite the attention of the Profession to the highly practical remarks of Dr. Taylor, on the cases published by him.

Excuse this intrusion, and accept the acknowledgments of

Your obliged,

HARWARD O'FARRELL, M. D., F. R. C. S. I.

Tangier, Boyle, April 11, 1872.

Medico-legal writers have described cases of delivery where the child has been expelled after the death of a pregnant woman, and in some few instances where this expulsion has taken place after putrefaction had commenced, and as a result of the process, One of the best authenticated of these occurred to Dr. Richter. of Weissenfels; it is reported in Casper's "Vierteljahrschrift fur Gerichtl. und offentl. Medicin." Vol. xix., p. 163. Berlin, 1861.

"A woman, æt. 45, married seven years, during which time she had aborted twice in the second, and once in the third month of gestation, was seized with severe spasmodic pains in the region of the heart. A nurse, who attended her in her pregnant state, found on examination that the mouth of the uterus was quite closed, the neck only a quarter inch long, and the head of the child lying forwards. There had been no discharge of blood or serous fluid, nor any appearance to indicate approaching labor. The patient become unconscious, and, breathing stertorously, died. A medical man, who had been sent for, only reached the house after her death. The body was washed and laid out, and was frequently seen by the nurse and other people of the house. Putrefaction set in somewhat quickly. Sixty hours after death, the nurse, perceiving some watery discharge about the genitals, slightly separated the thighs of the corpse. On the following morning, when arrangements were made for placing the dead body in a coffin, there was found, lying between the thighs of the corpse, the dead body of a well-developed, eighth month fœtus, in a partially putrefied state; with it were lying the umbilical cord and the placenta. Abdomen was distended with gas. This case is remarkable, inasmuch as uterine contents were expelled by putrefactive gases, although labor had not previously commenced. Still the facts were of that character that nothing but physical force could have been concerned in the expulsion of the dead body of the child.—*Med. Press and Circular.*

BILIARY CALCULI.

Dr. J. C. Van Wyck, of Oakland, reports F. T., æt. 59, female—a case which he treated at intervals for the space of five years. Prof. N. R. Smith, of Baltimore, had observed the case twenty-five years previously, at which time, although she was residing in a malarious district, she speedily recovered her usual health. Shortly before Dr. Van Wyck was called in attendance, she had suffered greatly from "bilious attacks," and had become reduced from corpulency to a condition of extreme emaciation. These attacks were of irregular occurrence, varying from ten to sixty days. The general health was not very good, appetite irregular, and bowels constipated; and owing to a constant dread of a return of the trouble, together with family afflictions, she became very despondent and depressed. The attacks would be instantaneous; with no previous warning she would be seized with vomiting, intense pain over the liver, and complete jaundice occurring within *half an hour* from the time of seizure. The jaundice hue differed from any previously seen, being the tint of a not fully ripe lemon, and the skin presented a shining appearance, in lieu of the usual flat, dead color of icterus. The paroxysm would last from one to two hours, with intense, uninterrupted suffering. The application of mustard to abdomen and feet, Ac. hydrocyanic to quiet stomach, and morphine to allay pain, would generally control the attack, and, after a mercurial purge on recovery, she would be as well as ever. During the intervals every remedy that could be suggested by different medical men called in consultation, and who all diagnosed as above, was tried, sometimes with apparent prospect of permanent relief, but all eventually failed, and the attacks now, after one year, increased in frequency until for the space of three weeks, forty-eight hours rarely elapsed without a severe one, and the patient rapidly failed, when Dr. Van Wyck determined to try the effects of strychnine, which was accordingly given in doses of 1–30 of a grain every three hours. The beneficial effect was so immediate that all other medicine was discarded, and the strength supported by it and easily assimilated articles of food. In three weeks, the patient left her room; the bowels acted freely; and the general improvement was so marked that the medicine was increased to 1–10 grains daily.

The patient faithfully persisted in the use of strychnine for six months, increasing the quantity to 1–5 grains daily when, believing herself free and cured, she abandoned its use, to be seized again in three weeks, with another familiar attack which necessitated the continuance of the remedy. Within the next two years she passed from the observation of Dr. V., but he learned that while away from home she had again left off the only remedy that had ever been of the slightest service to her, and, in a paroxysm of the well known attack, had died. There was no autopsy made. The question that naturally arose in the mind of Dr. Van Wyck was, was this a case of biliary calculi, or a spasmodic action of the hepatic duct, causing a distention of all its ramifications and cutting off the flow of bile?

Long before the patient had passed from his observation, the Doctor had taken the latter view for the reason that with every attack, gall-stones had been diligently sought for and never found; and this gall-bladder could not be detected on examination after these innumerable attacks, as would have been the case were it distended with calculi sufficient in quantity to account for the frequency of the seizures. Again, spasm of the duct is frequently followed by instant jaundice, as in the present instance, while Villeneuve, and other eminent authorities, teach that slow depressing passions of the mind are fruitful causes of producing spasm of the duct.

Dr. Van Wyck added that during the past three years he had visited another female, æt. 41, whose case he diagnosed as biliary calculi. It resembled the first one reported; in fact, the only difference being that the resultant jaundice was not observed until *several hours* after the seizure, and its hue was the *typical icteric* one. The treatment has been—hydrocyanic acid to allay nausea, morphine hypodermically, and a pill of podoph. assafœt. and nux vom. Owing to the infrequency of the attacks, the constant use of the nux vom. was considered unnecessary. There had been no attack for eight months.

Dr. Thos. Buckler, of Baltimero, published an article in the *Half-Yearly Abstract*, July, 1868, on this subject. He gave chloroform in teaspoonful doses every hour during the attack, and one dose after each meal, for five subsequent days; he then used hyd. succinat. ferri per ox ʒj*ss*, aquæ. ℥vj*ss*. M. S. ʒj., after each meal; this was continued for three months with benefit. Three other cases submitted to the chloroform treatment were promptly relieved.—*Western Lancet.*

MEDICAL GLEANINGS.

ICE IN ACUTE RHEUMATISM.—Professor Esmarch, in a communication to the Berlin Medical Society, related instances of the great benefit which he had derived from the continuous application of ice to joints affected with acute rheumatism. The general temperature becomes lowered, the pain abated, and the course of the disease abbreviated to an extent procurable by no other means. So far from fearing the induction of cerebral affection by repelling the articular inflammation—the *phrenopathia rheumatica* being here, as in typhus, dependent upon the increased temperature—ice is especially indicated for its prevention or removal.—*Medical Times and Gazette.*

MURDERED BY A NEEDLE.—An extremely interesting medico-legal case is reported from Limberg. The wife of the attendant at the anatomical cabinet died suddenly, and without visible sign of disease or injury. This led to a *post mortem*, which at first revealed no cause of death. A closer examination, however, discovered an almost imperceptible red point in the region of the heart, resembling the bite of a flea. This region was of course at once examined to disclose a broken needle in the heart. The murderer, thoroughly familiar with the anatomy of the body, had doubtless sacrificed his victim during sleep. The anatomical servant was at once arrested.—*Clinic.*

NEW TREATMENT OF PERSISTING INFLAMMATION.—Prof. John Marshall (*London Lancet*, August, 1872,) highly recommends the local application of the oleates of mercury and morphia in persistent inflammation, more particularly of the joints. It is made by dissolving recently prepared oxide of mercury in oleic acid and adding to each drachm of the solution one grain of morphia. He claims for it greater elegance, economy, and efficiency, than is possessed by any of the mercurial unguents. Being a solution instead of a mechanical mixture, it is more rapidly absorbed, and, as a consequence, the remedial effects are manifested with greater promptitude.—*Medical Herald*

ALCOHOL.—The following "declaration" respecting alcohol has recently been published in the British medical journals. It is signed by two hundred and fifty-four physicians and surgeons, including some of the most distinguished names in the profession in Great Britain. Its appearance naturally excites much criticism.—*Boston Med. and Surg. Journal.*

As it is believed that the inconsiderate prescription of large quantities of alcoholic liquids by medical men for their patients has given rise, in many instances, to the formation of intemperate habits, the undersigned, while unable to abandon the use of alcohol in certain cases of disease, are yet of opinion that no medical practitioner should prescribe it without a sense of grave responsibility. They believe that alcohol, in whatever form, should be prescribed with as much care as any powerful drug, and that the directions for its use should be so framed as not to be interpreted as a sanction for excess, or necessarily for the continuance of its use when the occasion is past.

They are also of opinion that many people immensely exaggerate the value of alcohol as an article of diet, and as no class of men see so much of its ill effects, and possess such power to restrain its abuse, as the members of their own profession, they hold that every medical practitioner is bound to exert his utmost influence to inculcate habits of general moderation in the use of alcoholic liquids.

Being also firmly convinced that the great amount of drinking of alcoholic liquors among the working classes of this country is one of the greatest evils of the day, destroying—more than anything else—the health, happiness and welfare of those classes, and neutralizing, to a large extent, the great industrial prosperity which God has placed within the reach of this nation, the undersigned would gladly support any wise legislation which would tend to restrict, within proper limits, the use of alcoholic beverages, and gradually introduce habits of temperance.

TWO LARGE BILIARY CALCULI.—At the last meeting of the South Carolina Medical Association, Dr. R. W. Gibbes, of Columbia, S. C. exhibited two large biliary calculi voided per anum, from a male patient, 36 years of age. The first weighed two hundred and forty grams, and was 3⅛ inches in its longest circumference. The other calculus was passed one year afterwards and weighed two hundred and sixty grains; the circumference was 4⅛ inches. When both were held together with their flat bases in contact, they measured 5⅛ inches in the long circumference, and 2¼ inches in diameter, being about sufficient to fill an ordinary-sized gall-bladder.—*Medical Record.*

A VERY interesting case of the successful transfusion of blood from one person to another is described by Professor Judgson, of Berlin, in a recent number of a medical journal published in that city. His patient was a man twenty-eight years of age, who had been poisoned by phosphorus, having taken a solution of the ignition mass of eight bundles of matches on the 9th of December. On the 11th of February, the activity of the heart having been excited by champagne, a transfusion of 580 cubic centimetres of blood, which had just been taken from three persons in good health, was effected, into a vein of the arm, 500 cubic centimetres of the patient's own blood being at the same time taken from an artery. An improvement in his condition at once set in, and he was able to leave his bed early in March.

CORRESPONDENCE.

MR. EDITOR:

In reading over the decision of the President of the Kentucky State Medical Society, at the meeting held at Louisville the present year, I was struck with the degradation to which a man in an elevated position could descend. The ruling of the President, on that occasion, is really painful for an intelligent man to read. With a cloud of witnesses before him, touching the character of one of their prominent members, he ruled them out of order, and refused a certain investigation. This reminds me of a little incident that occurred, in the Academy of Cincinnati, on one occasion. The Committee on Ethics were given the duty to investigate charges that had been drummed up against a member by Jack Murphy, to draw away attention from certain acts of indecency by him towards Dr. Bauer. This committee was headed by a small man as chairman (not little Dave, but one P. S. Conner, whom Sister Anthony at one time expelled from her staff for reasons sufficient to her). After several protracted sessions, and after the expending of a vast amount of intellectual labor of the sort the mountain experienced when it brought forth a certain quadruped, the report was produced. The chairman admitted in his report, that no violation of any law, either written or oral, had been detected; yet, he stated, that the *motives* of the defendant should be censured. This he did, though the defendant had not been before the committee, nor had been afforded an opportunity to be heard on his motives. The chairman thus claimed the office of the deity to examine the thoughts and intents of the heart. We have never heard of his profiting any by his letting himself down into the filth for the said Murphy or his clique. We have, consequently, another illustration that when an individual sells out to the Devil, he does so cheap.

The discussion on that occasion, before the Academy, was exceedingly interesting, though brief. Dr. McIlvaine protested against the adoption of the report, stating that the medical journals had always claimed the largest liberty in discussion and criticism, illustrating that in 1869, a communication, to the Board of Trustees of the Medical College of Ohio, was published, in the *Lancet and Observer*, signed by Drs. James Graham, John A. Murphy, L. M. Lawson, C. G. Comegys, and others, alleging that they could not associate with Dr. Geo. C. Blackman "without ignoring their manhood." Dr. McIlvaine continued, that, notwithstanding these charges, Dr. Blackman did not resort to the Academy for redress. "Again," he said, "Dr. Blackman, in the same journal, asserted that one of the gentlemen mentioned was a 'dishonest man,'—yet we never found our colleague coming for redress to this institution. Personal matters," said Dr. M., "should be settled by the parties themselves."

Now it may appear strange that our minutes should be defective. But such is the case, for these remarks of Dr. McIlvaine are not found in them. The small man, who acted as secretary on that occasion, failed to make our minutes a record of the proceedings. We consider him a fine illustration of the pupil being worthy of his master.

September 28th, 1872. N. Y.

Book Notices.

EVERY-DAY ERRORS OF SPEECH, by L. P. MEREDITH, M. D., D. D. S. 16 mo. pp. 96. Philadelphia: J. B. Lippincott & Co.

This little work, by a Cincinnati dentist, will be found highly useful. On looking through its pages, we think almost every one will be astonished how many are the "every-day errors of speech," and we think there are more than would be supposed who will find that they do not *speak English*. We do not refer, in thus speaking, to those who are guilty of the grossest violations of syntax and orthoepy, nor to those who habitually use cant and slang phrases, for the book has not been written to correct the errors of such, but rather the errors that are of constant occurrence even among people of education.

The few pages that are devoted to the correction of the erroneous pronunciation of medical and dental words are alone worth the price of the book. In this list, we find set down as the correct pronunciation of *rubeola*, that the accent should be on the first syllable. *ru*, and not on the third, *o*. We feel confident that more than ninety-nine physicians in a hundred use the latter pronunciation.

We very cordially recommend the book to all. Price 75 cents.

TRANSACTIONS OF THE INDIANA STATE MEDICAL SOCIETY, 1872,—Twenty-second Annual Session. 8vo. Pp. 176.

Dr. Woolen, of Indianapolis, the secretary, has presented us with this handsomely gotten up volume of Transactions. It is replete with a large number of able papers read before the society, which show no little talent on the part of the membership. It is to be regretted that these papers cannot have a wider circulation than they will have by only a publication in the annual proceedings.

Editorial.

TO SUBSCRIBERS.—We regret very much to be compelled to announce that quite a number of subscribers of the NEWS have not paid their subscription for the present year. This is not as it should be. Physicians above all others should pay what they owe. A doctor who does not pay for his journal should not complain if his patrons do not pay him for his services.

We hope our friends will attend.

MEDICAL LECTURES.—Medical students are flocking to Cincinnati in great numbers to attend the coming fall and winter term of Lectures. Probably at no previous period was there ever such prospects of large classes, in the different colleges, as at the present time. Not only the *regular*, but the other schools have reason to expect a large attendance of students. Cincinnati seems to be appreciated more and more every year for the facilities it possesses for thorough medical education; and, if it does not become eventually the great medical center of the country, it will certainly approximate very closely upon it. Last winter the number of students in the city was estimated at near five hundred. This year it will probably fall not far short of eight hundred. When the Southern Railroad will have been completed, we would not be surprised if the number of students in winter time would be increased to fifteen hundred, and to half that number in spring and summer.

At the time of writing, the Cincinnati College of Medicine and Surgery has a larger number of matriculants than it ever had at any previous time near the beginning of a session. The friends of the school have reason to anticipate an unusually large class the coming term. With a new building, that is the admiration of every one that has examined it, we have no doubt it will enter upon a new era of prosperity, and stand a very good chance of becoming the leading school of the West, if not of the country.

MEDICAL TRAINING OF WOMEN IN RUSSIA.—We take the following from the *London Lancet:* "At a recent public examination of the students of the school of midwives attached to the Kalnikine Hospital in St. Petersburg, Dr. Kozlow took occasion to offer some observations on the medical training of women. Twenty pupils of the school were examined, the examination being conducted by the professors of the school, some of the spectators present taking part in it; and the result appears to have been highly satisfactory, all the pupils without exception answering well the questions put to them. After the examination was concluded, Dr. Kozlow stated that he was of opinion that the training of women to practice medicine would not only prove of great utility in respect to the treatment of the ailments among women and children, but would also be a great gain to the male practitioner in medicine. The latter, too commonly overwhelmed with work, and unable to devote the time which he could desire to scientific studies, would, by the encouragement of female practitioners of medicine, be relieved from some portion of his onerous labors, and thus gain opportunity for study. We question whether this novel view of the benefit to male practitioners of physic to be obtained from the encouragement of female practitioners would be accepted in this country, and whether the labors of the great body of practitioners here are so onerous that they would be desirous to seek relief from them in the direction indicated by Dr. Kozlow. His observations were received with great applause by the audience; but notwithstanding the loudly expressed sympathy with Dr. Kozlow's views, Dr. Herwitz, the director of the Child-bearing Asylum, ventured to express his dissent from them. Dr. Herwitz boldly asserted that the intellectual development of women could never reach the level of that of men. Women had never produced a genius either in the sciences, or in art, or in painting, or in music! The incompetence of the American female practitioners in medicine, he averred, was proved by the fact that physicians (of the male sex) refused to meet them in consultation. To this attack, Dr. Kozlow responded that, in regard to medicine, American female practitioners could not justly be cited; but he would point to Sweden, where females had now practised medicine with the greatest success for fifteen years. Dr. Kozlow, in fact, seems to have exaggerated his subject in one direction; Dr. Herwitz in the other.

MURDER AS A FINE ART.—Our readers have noted, within a year, three alleged murders, or series of murders, of the most striking characteristics, in each of which the deeds were asserted to have been perpetrated by the employment of concentrated vegetable or chemical poisons. Dr. Schœppe was accused of the murder of Miss Steinnecke with hydrocyanic acid; Mrs. Wharton used, according to her accusers, tartar emetic; Dr. Medlicott, atrophia and morphia. The accused have all been acquitted, and we hope correctly. But what must startle every reader, even the most indifferent, in perusing the reports of these trials, is the utter and irreconcilable discrepancy which appears in the medical testimony in all of them. The most expert specialists were placed on the stand, and contradicted each other flatly. Processes detailed by the one side as positive and final in proving the presence or absence of the poisons in question, were derided and pronounced futile and useless by the other. Symptoms and conditions, asserted by the one set of medical witnesses to point unmistakably to a poisonous agent, were explained by other physicians of equal reputation to be well-recognized appearances of familiar diseases.

From this conflict and contradiction, what conclusion can be derived? This, assuredly—and this only: that there are many poisons which *cannot* be so positively detected by the symptoms they produce during life, or the marks of their presence after death, that a jury can bring in a verdict of guilty on evidence of this character alone.

Let the murderer succeed in destroying the evidence that he possessed such poisons, and collateral proof of that nature, and it seems he can, without much fear of doctors or chemists before his eyes, administer his fatal draught, call in the family physician, and calmly abide the result. Why, if this continues, we shall drift back to imitate the days of the Marchioness of Brinvilliers, and the famous *poudres de succession*, sold as a certain means of giving heirs early possession of their paternal estates.

Fortunately much of this uncertainly, we believe, is attributable to the custom of *partisan witnesses*, a usage that should be early and forever abolished.—*Reporter*.

DR. J. TRUSH.—This gentleman has been appointed to the Chair of Physiology in the Cincinnati College ot Medicine and Surgery.

Recently returned from Europe, where he has been engaged in the hospitals of the principal cities, especially Vienna, in the study of medicine, and gifted with ability to acquire knowledge, he will undoubtedly be found well qualified to fill the position to which he has been chosen.

Dr. Trush has a number of times been a contributor to the NEWS. In an article published in the NEWS, he was the first one to announce in this country the discovery of Lostorfer's corpuscles in the blood of syphilitic patients.

NIEMEYER'S LIBRARY.—Dr. Felix von Niemeyer's large and valuable library has, since his death, been bought by Albert Moser, of Tubingen, a bookseller, who has carefully catalogued it, classifying it under the same headings as Niemeyer's *Practice*. The catalogue contains 200 pages, and can be obtained from L. W. Schmidt, German bookseller, 24 Barclay Street, New York City.

OPIUM TRADE.—During the twelve months ending June 30, 1871, there were imported into the United States 5,041,936 ounces of opium, worth $1,926,915 in gold; and during the year ending June 30, 1870, there were imported 4,073,744 oun es, worth $1,776,908, making an increase of twenty-four per cent. in quantity and eight per cent. in value. According to the above figures, opium in 1870 was worth, at the Custom-house, about seventy cents a pound, and in 1871 about sixty-one cents a pound—a decrease in price of thirteen per cent.

A NEW MEDICAL COLLEGE.—We learn from the *Medical Record*, October 1st, that a new medical college has been opened at Syracuse, N. Y., called the College of Physicians and Surgeons, and that Dr. E. B. Stevens, of the Cincinnati *Lancet and Observer*, has been appointed to the chair of Materia Medica and Therapeutics and Botany. It is not stated whether the Miami College is about to hybernate again or not.

E. GUNDLACH, the eminent maker of microscopic objectives, we have been informed by letter from Berlin, will soon be in this country to establish his business here. His business in Germany will be left in charge of other parties. His manufacture in the United States will be confined to the construction of object glasses of high power and of the finest quality.

Gundlach's objectives are equal to any made in the world. We have his, and also Powell & Lealand's, but prefer the former. Besides, they are much cheaper than those of any other manufacture. We are confident that the microscopists of this country will hail his coming with pleasure. He will probably visit Cincinnati, so he informs us.

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THE INFLUENCE OF THE MENTAL OVER MAN'S PHYSICAL FORCES.

Read before the Ohio State Medical Society by A. B. Jones, M. D., Portsmouth, Ohio.

We prick the finger with a needle and instantaneously a nerve of sensation gives us an intelligent idea of violence. By the aid of the scalpel and microscope we are enabled to follow up the nerve fibre to its starting point. No sooner has the sensation reached what we are taught to call the seat of the mind, the brain, than another set of nerve fibres spring into action, and at once withdraws the finger from further injury. These nerves of sensation and motion are simply prolongations of the medullary substance of the brain, spinal cord, and semi-lunar ganglions, which find their way to every part of the body. Had no other office been assigned to the brain than the control of these forces alone, it would have a duty of highest importance to perform. But we have an office assigned it infinitely higher than that of sensation or motion. The brain is the workshop of man's mental forces; this we will neither assume nor deny, holding either position beyond demonstration, but simply ask, where are the nerves of thought? Are they wrapped up in the gray or white substance of the brain, to grow and strengthen, as Prof. Agassiz advises us, by eating fish? or, as Mark Twain pertinently suggests, a whale? Or are they lying loose in the front and large portion of the brain, the one-fourth of which I have seen a boy lose, from a fracture caused by a gunshot wound, without affecting his mind? But the object of this paper is not so much to hunt up the exact location of man's mental forces as to show their influence upon physical organs, the exact location of which we do understand, together with their functions. That a man may enjoy good physical health with a very feeble intellect, is a fact so well established that but few will controvert it. But the converse will not hold good; the immortal part of man, that which was made in the likeness and image of the Infinite, is dependent for its proper, full and vigorous development upon the healthy and well-developed condition of all the physical organs.

A man is no more capable of reasoning correctly who is a confirmed hypochondriac—which we have been taught to believe has its origin often in the derangements of digestion—than he would be with softening of the brain, or, if you please, with a tumor on the brain. Yet the mind, so to speak, may dwarf the man physically to such an extent as to cut off its own supply; and it is this, as guardians of the health and preservation of our race, that we are daily called upon to consider, and, it may be, to correct. The influence of the mind is more frequently, and, perhaps, more directly, felt upon the stomach than any other organ. Who of us has not sat down to dinner with a keen relish for the good things set before us, when some sudden news, depressing, perhaps, in its character, has in a moment induced satiety. Intense grief or fear is said to have changed the color of the hair in a single night from black to white. An over-anxious feeling, coupled with hope and doubt, is very apt to increase the secretion of the kidneys. Prurient thoughts will increase the secretion of semen; the cry of a young child will start the lacteal flow in the mother; the fear and dread of a cancer has, without much doubt, converted a simple fibrinous tumor of the breast into a malignant one; putrid or disgusting objects may produce emesis; and there is but little doubt but that the mental emotions may be so operated upon as to cause an attack of diarrhea. And so we might go on until we had enumerated nearly all the secreting organs of the body. Men in good health meet with some little reverse in their business, they grow anxious about it, lose sleep and appetite, then they worry because they can not either eat or sleep, until they become sick. The physician is told everything but the truth, when he proceeds to worry them additionally with drugs. When death supervenes, they die of "softening of the brain," a very convenient disease for men to die of; the skull is so thick that you can not conveniently feel the brain through it, and then if an autopsy is made, why, the brain is always sure to be soft, which proves eminently satisfactory to the friends.

A sick person grasps the thoughts of the physician the moment he enters his chamber, and holds them as if they were things tangible, just as he does the outstretched hand, only he holds them long after the doctor has gone on his weary way. Hence the quiet, cool, easy, cheerful, graceful, self-possessed, confident doctor is always the successful practitioner. A physician once wished to compliment a lady who had brought a floral tribute to one of his sick patients, and while looking upon the beautiful bouquet of flowers close to the blanched cheek, he politely remarked that he once knew life and death poised in the balance, and the delicate odor of the citron turned the scale in favor of life. While this may not be literally true, it is not without its effect, and it is as much the duty of a physician to look after and control that spirit essence, or subtle essence, the mind, as it is to know that the stomach has been relieved of its noxious bile, or that the fevered pulse now keeps pace with his own. The finest medical lecture ever given, at least in so short a compass, was by Solomon; it is this: "A merry heart doeth good like a medicine, but sorrow is as rottenness in the bones."

It is a common saying that you must have faith in a doctor, or his medicine will not cure you. Now confidence and trust in a physician's skill is, no doubt, oftentimes fraught with good results. The solution of this is that the mind is relieved, in a measure, of its anxiety—ceases to concentrate itself upon the diseased organ; but this is not so much a cure by faith as it is a cure by mental over physical force. It is not only that one's own physical organs are influenced by mental force, but that through the latter, or nerve force, or mesmeric force, one's mind exercises a material influence over another's physical organs. This pertinently suggests the necessity of a thorough study and knowledge of human nature by the well-educated physician. It is not unfrequently the case that we find physicians eminently qualified to practice their profession who are very unsuccessful in their practice. Why is this? It is certainly not because their diagnosis has been faulty, neither is it because improper medicines have been used; but it is because the mind of the patient in stretching forth its delicate tendrils—maybe bruised ones—found nothing to refresh and strengthen them. Simply because the souls of the physician and patient, or their minds, did not seek to get acquainted with each other. This certainly is the chief cause of their failure, and tells us very plainly that our minds, our souls, our thoughts, must be administered, as well as our drops and pills, if we would successfully combat disease.

We occasionally meet persons with imaginary diseases—imaginary in the beginning, but real in the ending. Again, there are some persons who have had real disease, been thoroughly cured, and yet their minds, so to speak, remain so full of the disease that they can not be made to believe they are well, and a depressing influence is thus brought to bear upon their general health, closely allied, if not akin, to the trouble they have been cured of. Now, blister plaster and quinine will not relieve this class of patients; they can only be cured by administering, to what we have been taught to call a diseased mind, an equal amount of healthy mind. How is it to be done? Well, there comes the rub; it is enough for my present purpose to say it must be done. Association occasionally develops disease. For instance, chorea. A boarding-school miss gets sick, recovers in a degree, but there remains with her an involuntary motion of some of her limbs, beyond her control. This occasionally extends through an entire class, almost as much so as rubeola or pertussis would. This, of course, I do not class as a disease of the mind, but rather as one that may be caused by acting through the mind. One other class of patients, and I am done. A patient comes to you, a highly intelligent gentleman—a lawyer perhaps—maybe a divine; he has read a great deal, he has thought a great deal, and no doubt but he knows a great deal in his line. He holds in his hands an advertisement that he has cut out of a newspaper of some patent medicine man, or it may be a leaf out of a Jayne's almanac; possibly some disciple of Hahnemann has sugared him up by his description of the aches and ills that flesh is heir to. Now, he wishes you to distinctly understand that he does not believe in patent medicines, and as for those little pills, he thinks nothing could be more insignificant, unless, perhaps, it might be the knave or ass who peddles them. "But then," continues he "they have described my feelings better than I could do myself, and it may be possible that this is just what I need." You examine the case carefully, and find instead of his needing a "Liver Invigorator," "Lung Balsam," "Blood Purifier," or "Catarrh Snuff," that he has simply overtaxed himself, both mentally and physically, until he can easily imagine aches he does not feel. But there is still another, and perhaps better reason; it is this, nearly every patent medicine man describes about the same class of symptoms, in about the same words, no difference what the disease he is describing. This is not noticed by the general reader. It requires only a little careful wording, with a moderate degree of ingenuity, to tell a man about how he feels, for there is scarcely any sick man who feels well. A little address may be well in the beginning; for instance, preface your remarks with, "You know from your own personal observation that he is a man who will not give up to trifles; that he has a general feeling of languor and debility all over; an occasional chilliness, followed with more or less fever, flashes of heat, a general aching all over, an occasional palpitation of the heart, a little nervous, will startle suddenly if frightened, irregular appetite, can not sleep well, a little running round of the head if he stoops down and rises up suddenly; after eating a hearty meal he gets up from the table feeling full." Now, this will satisfy nine men out of ten. Of course, I need not here remark that this is all absurd, but nevertheless it is kindred stuff, through patent medicine advertising, that causes a great deal of the diseases of both the mind and body that we are called upon to treat, and I merely refer to it to illustrate the action of the forces of which this paper is the subject.

COMPLICATED CASE OF LABOR.

By R. B. ELDERDICE, M. D.

On July 4th, 1869, was called to attend Mrs. K., in labor with her eighth child. She was a stout, healthy woman, aged 35 On first examination, detected nothing unusual, save that the bag of waters was very soft, and that the child laid so high up that I was unable to detect position, or make out the presentation. As labor was progressing very slowly, I made no haste to learn more. However, finding my case becoming one of lingering labor, with weak, but frequent pains, and that mouth of womb was well dilated, and fœtus still so high that it could not be reached by the finger, I concluded I had a case of dropsy of the amnion, and decided upon rupturing the membranes, which I accomplished, and was somewhat surprised by being deluged with at least a couple of gallons of liquor amnii. I then at once made a vaginal examination to endeavor to learn the position of the fœtus, which I found to be a transverse one—head to right side, and face to back of the mother, the left shoulder presenting. Turned, and delivered child by the feet. Infant was still-born, and all efforts to resuscitate it proved ineffectual. Had followed womb down, during delivery of the child, by the hand of an assistant, and the womb seemed well contracted. Presently the woman fainted, as I supposed, from sudden removal of so much cause of distention (as sometimes occurs), she not having yet been bandaged, owing to my attention being given to the child. On examination, at once instituted into the condition of the placenta, it was found adherent over part of its surface, and that the syncope depended upon flooding as much as upon removal of the cause of distention, the vagina being filled with coagula, and the case one of concealed hemorrhage.

I introduced left hand, properly annointed, to effect the removal of the placenta. The passage of the hand seemed to irritate the womb, and caused severe contractions, which were a cause of difficulty in the operation. The womb had contracted on the placenta, forming a corner or sac, at the fundus, in which it was enclosed; this contraction admitted the hand after some little delay, and I attempted removal of the adherent portion of the placenta. The portion of after-birth which was morbidly adherent, was no larger in size than the space which the old-fashioned copper cent would cover, yet, the tenacity of the adhesion was so extreme, and the contractions of the womb now becoming so powerful from the irritation which my hand in its movements occasioned, that I was almost on the point of giving up in despair of being able to effect my object; but, knowing that such a proceeding would be almost certain death to my patient, I made one more careful and strong effort, and succeeded in effecting the separation of the placenta. The womb contracted upon my hand as it was expelled with the after-birth, and there was no further trouble with the flooding. The lady made a good recovery, and about a year later I attended her in a perfectly natural, easy labor.

The case presents several points of some interest: First, the quantity of liquor amnii, which was very excessive; second, though in the first stage of labor the mouth of the wound was well relaxed and open, in the last stage the womb was spasmodically contracted around the placenta; third, the unusual number of complications existing in the same case, viz., dropsy of amnion, transverse presentation, syncope, concealed hemorrhage, morbid adhesion of placenta, and spasmodic contractions of fundus of womb—making no less than six complications in one labor. We are generally taught that bleeding and syncope will relax the womb, but in this instance the contractions at fundus of the womb existed after and during the attack of fainting, while the mouth of womb was sufficiently relaxed. It may be proper to remark, that the child presented no marks of dropsical effusion that I could discover. I report this case merely as an example of the number of complications of labor which may, and sometimes do, exist in the same patient, and to show that in all cases we need, even though the case promise to be easy, speedy, and natural, to exercise caution in any statements we may make to the woman, or her friends, in regard to the termination of the case; and that it is impossible to be too much on the alert in detecting irregularities, or too prompt and persevering in our judicious efforts to counteract and relieve them.

THE PART PLAYED BY VEGETABLE PARASITES IN THE DEVELOPMENT OF DISEASES.*

Par M. le Dr. PAUL SPILLMANN.

Revue Critique des Archives Generales de Medicine.

Extract—Translated by THOMAS C. MINOR, M. D.

§ A.—DISEASES OF MAN.—Diseases accompanied by an infection of the blood.

1st. *Intermittent Fever.*—Salisbury was one of the first to study the pretended contagion of intermittent fever; he described, in relation to this subject, a special fungi, and claims to have brought on attacks of fever in elevated countries where it was before unknown, by transporting it there in boxes containing soil taken from marshy ground.

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* Only a small portion of this article is here translated, and for fuller information the reader is referred to the "Archives" of Sept. 1872.—T. C. M.

Schurtz (Archiv der Heilk., ix , p. 67, 1869) cites the case of a botanist who was attacked by clearly and well marked intermittent symptoms, in a village where fevers of this sort had never been observed. This learned man cultivated, in his chamber, ferns, under bell-glasses; the sides of these glasses were covered by greenish cellules, and the air of the room had a very decided marshy odor.

Balaestra (Richerche ed experimenti sulla natura e generi del miasma palustre, Roma, 1869. Cf. 35 pp.) describes as a cause, and as a miasmatic principle of the fever, a special alga (?) (chladophora eudiviæfolia) that he observed in marshy ponds and found also in the environs of Rome, in the air; the spores are especially abundant at the end of the month of August (fever season) and the day after a rain.

Schlagintweit (Voyage dans les Indes, vol. ii.) speaks of a special miasm in the Tarai, at the extreme south of the Himalaya; this country is marshy and very humid, and there is developed there an infecting odor, due to the putrefaction of vegetable matter; a single day's sojourn in this country suffices for the contraction of a deadly disease.

Cholera.—The question of the parasitic origin of cholera is certainly one of the most important; here, in a few words, is the *resume* of the investigations which have been made regarding this subject:

Klob (Patholog. Anat. Studien uber das Wesen das Cholera processes. Leipsig, 1867) found in the intestines of patients dying of cholera, and also in the stools of cholera patients, a micrococcus (?), of which the number seemed proportional to the intensity of the disease. The author has described this micrococcus under the name of Zooglœa; he has cultivated it, and it becomes, says he, transformed into leptothryx. Thome (Virchow's Arch., 38, Fevrier, 1867) discovered, at the same time, identical elements, and obtained by culture a fungi to which he gave the name of Cylindrotænium Choleræ Asiaticæ (Voy. de Bary-verh, de Cholera Conf. 1867, p. 52). This fungi would be the germ of a non-determined *mucor* (cystospore).

Hallier (Das Cholera Contagium, Leipsig, 1867) observed in the Berlin epidemic, 1866, and in that of Elberfeld also, a fungi which belonged to the order of Ustilaginees. This fungi, cultivated at a high temperature (25 deg. to 30 deg. R.). produced capsules of mucor (cystospores,) which contained the brownish spores, the same as are observed upon grasses in the open air (Urocystis). Starting from this, Hallier supposes that the fungi of cholera develops itself in hot and moist countries, and perhaps in the rice plantations of Oriental India. This fungi, deposited and cultivated upon the intestinal mucous membranes, preys upon and destroys the epithelium (see Hallier, Zeitschr. f. Paras. vol. 1, p. 177).

We will not leave this subject without describing a curious fact. Virchow and Hoffmann (Virchow's Arch. 1869, vol. 47, p. 524, 1870; vol. 50, p. 455) found, in the intestines of animals poisoned by arsenic, fungi altogether analogous to those observed in cholera stools.

Refer also to E. Nedvetzki (Zur Mikrographie der Cholera Anzzug aus der Moskauer Medicinischen Zeitung, vol. 36, 1871).

Typhus.—Hallier (Parisitol Unters, p. 42-3.) says he has observed in the intestines and in the blood of individuals attacked by typhus, a special micrococcus, to which he gives the name Rhyzophus nigricans. See, regarding this subject, Ferdinand Muller (Typus exanthematicus. Jena, 1868) and Werner (Berliner Klin Wochenschr, No. 35, 1868), likewise Coze and Feltz (Recherches experim. sur la presence des infusoires et l'etat du sang dans les maladies infectieuses. Strasb. 1866).

Dysentery.—Dyes (Jour. f. Kinderkr. May and June, 1870, p. 317) pretends that in certain years the fruits were covered by abundant parasitic deposits, which constituted the contagious principle of dysentery.

Pfeiffer observed an epidemic of dysentery in 1868, at Weimar, and made a communication on this subject, completed by Hallier (H. Zeitschr. f. Paras. vol. 1, p. 1).

These two observers found in dysentery a special fungi which differs completely from that of cholera and of typhus. See also Basch (Anatom. Med. Klin. Unters, uber Dysenterie, in Virchow's Arch. 1868. vol. 45, H. 4, p. 204).

Variola.—It is useless to dwell here upon the remarkable work of Chauveau, they are known to all readers, and we have already given an analysis of it.

Hallier (Virchow's Arch. vol. 42, p. 309) undoubtedly found, in human vaccine, movable spores, they were conical. In cultivating the variolic lymph of sheep, he obtained the same fungi.

Keber, of Dantzig, (Archives de Virchow, vol. 42) describes in vaccine, small *granular cellules* from 1.150 to 1.300 diameters, then a great quantity of free nuclei from 1,800 to 1,300 lines in diameter, likewise very slender punctiform molecules. These elements may be the true agents of vaccine virus.

In the lymph of variola and of varicella, the author observed similar corpuscles, and attributed to their presence the virulence of the liquid.

Schurtz, de Zwikau, (Archiv. der Heilkunde, p. 64, 1868,) has published very curious investigations upon vaccine virus, a complete analysis may be found, *loc. cit.*

Measles.—Hallier, *loc. cit.*, found in the blood and in the sputa of patients attacked by measles, a very thin micrococcus, provided with very long vibratory cilia and endowed with a particular movement. Cultivated upon a mixture of wheat starch and phosphate of ammonia, this micrococcus will transform itself in the space of six days into a mucor mucedo (cystospores); in the sputa, he always found penicillium. These observations agree with those of Salisbury, who admits the origin of measles is found in straw, in putrefaction. This observer, at the same time, made attempts at inoculation in order to support his opinion. See Schmidt's Jahrb., v. 121, p. 49.

Keber (Arch. de Virchow, vol. 42) recognized the existence of numerous nuclei and granulations in the epidermic scales, arising from the desquamation of the rubeolic patches, and is tempted to consider them as the elements of contagion.

Scarlatina.—Schurtz (Archiv. de Heilk., 9, p. 69, 1868) was one of the first to describe the existence of micrococci (?) in the epidermic desquamations of patients attacked by scarlatina.

Hallier has described (Jahrb. f. Kinderkrh. N. F. II. p. 171–180) the morphology of the fungi, of which he found the spores in the blood of patients attacked by scarlatina. He gives to the fungi thus obtained, by culture, the name of Tilletia Scarlatinosa.

Hoffmann (Zeitschr. f. Paras., vol. 3, p. 105) has treated a number of patients attacked by scarlatina, by means of cold wrappings, and has always found micrococci in great numbers in the linen which had served as a covering.

Diphtheria.—There are few diseases which have attracted the curiosity of observers as much as diphtheria; so the works published regarding this subject are very numerous, and some are very remarkable. See Jaffe, Jahrb., 149, p. 217, where is found the complete analysis of the works of Letzerich, Huter, Oertel, etc.

In examining diphtheritic membranes slightly hardened in a diluted solution of chromic acid, (Letzerich, Virchow's Arch., 1869) we can follow the different phases of development of a fungi that he describes under the name of Zygodesmus fuscus. At the beginning of the disease we find in the mucus, small rounded granulations, very brilliant; later they are yellow or brown. Springing from these granulations are very slender and delicate filaments, entangled, which penetrate into the epithelium, and often form thick tufts there. Very soon the epithelium is destroyed, disintegrated, transformed into an amorphous and resistant mass. At the level of the free edge of the mucous membrane we perceive a series of elongated filaments, supporting spores. These spores are developed in a constant manner, and so rapidly, that the infection of the neighboring parts takes place very rapidly.

The author has not stopped here; he cultivated the fungi found in diphtheria upon the pseudo-membrane itself, and upon different vegetable substances.

In order to better determine the part played by these small vegetable organism, he placed in the vagina and in the conjunctival sac of a healthy rabbit the spores and filaments of the cultivated fungi; at the end of ten hours the parts upon which he had placed the contagious principle were considerably swollen; seven hours later. death came on. At the autopsy, he found all the different stages of diphtheritic infection.

Glassen (Wesen der Diphtherie, Versammlung baltischer Ærzte in Greifswald, 1870) likewise admits the existence of innumerable granulations, whose presence brought about the fatty degeneration of the epithelium. These granulations, similar to the monads described by Huter and Tommasi, penetrate into the blood and bring about its alteration. Nassiloff (Ueber Diphtheritis, Virchow's Arch., 50, 550–565,) has investigated, by inoculating diphtheritic masses upon the cornea of rabbits and dogs; the author also admits that the fine granulations he has observed are related to a vegetable parasite. See also Lœvinson and Klotsch (Recherches sur le champignon de la diphtherie. Berlin, ætiolog. Ges. March 4th, 1869). Betz (Etiologie de la diphtherie, Memorabilien, Oct., 1868) considers the contagious principle of diphtheria a micrococcus whose spores enter the mouth during respiration, and afterwards bring about the ulterior symptoms of the disease.

Oertel (Jahrb., 149, p. 228) considers diphtheria as an inflammation of the mucous membrane, occasioned by the presence of a micrococcus which, after having disorganized the superficial layers, enters the lymphatic network and from thence into the blood, in such a way as to produce a true septicemia.

Whooping Cough—Letzerich (Zur Kenntniss der Keuchhustens, Virchows Arch., 49, 4, p. 530, 1870, taf. 6) found in the sputa of infants, at the moment of the catarrhal period of the disease, small roundish eliptiform spores, of a reddish brown color, and some filaments belonging to the thallus. In the second stage, or nervous period of the disease, he observed very numerous arborized filaments and congeries of spores, which formed in the sputa small whitish masses, clearly limited, and visible to the naked eye. He introduced these spores into the trachea of several animals, which were attacked at the end of some days by catarrh, afterwards cough from pulmonary inflammation and anorexia. On autopsy, the author found fungi upon the mucous membrane of the larynx and bronchi and in the pulmonary cells—the same as in emphysema and lobular hyperæmia. Letzerich admits that whooping cough is transmitted by the intermediary of the spores of fungi that he has observed. At the moment of convalescence, the masses formed by the fungi are disintegrated and are expelled by the expectoration. The fungi of diphtheria should be completely different from that of whooping cough.

Syphilis.—Hallier has described the fungi of syphilis (?) (Zeitschr. f. Paras., 1, p. 179). Klotzsch (ib., p. 274) describes a fungi found in the blood of syphilitics and in the pellicle of psoriasis syphilitica. This author considers the spores of this fungi (p. 277) as the true agents of the disease.

Salisbury (loc. cit.) has published observations very nearly identical.

Bruhlkens (Zeitschr. f. Paras. 11, p. 96) pretends that primary syphilis is due to a variety of leptothrix which penetrate into the organism, which afterwards becomes infected, from this the origin of secondary syphilis. See also Neumann (Litz. Ber. des Wien-ærztl. Vereins, Nov., 1870).

Lostorfer (Ueber die specifische Unterscheidbarkeit des Blutes syphilitischer, Arch. f. Dermat. ut. Syph., 1872, p. 115–134) has made numerous investigations upon the blood of healthy individuals and those attacked by syphilis; he has studied the blood, obtained by means of punctures made in the skin, in a moist chamber, and with an immersion objective, Hartnack's No. 10. At the end of two days, the blood of individuals attacked by syphilis contained nothing special, unless vibrions and bacteriens; from the third to the fifth day, the author saw appear small rounded and brilliant corpuscles, furnished sometimes with a small prolongation; two days later, these corpuscles were more numerous and in part increased in volume; then very soon they were covered by granules, and, towards the tenth day, he saw appear at the centre of the more voluminous corpuscles a vacuity so considerable that the envelope was thinned and characterized by a double contour. Here the development ceased.

The author sought in vain for similar corpuscles in the blood of individuals not suffering from syphilis, so he considered them as characteristic of the disease, and has given them the name of *syphilis corpuscles.* A discussion took place on this subject in the Medical Society of Vienna; Hebra and Stricker, having submitted to the examination of Lostorfer, numbered preparations taken from healthy individuals and from those suffering from syphilis. This observer never failed in his examination.

On the contrary, Weld claims that Lostorfer's corpuscles also exist as well in normal blood as in the blood of syphilitics; he considers them to be fat corpuscles which are produced by the blood at the moment it leaves the vessels, or as the *debris* of protoplasm from the white blood globules.

Vaida [Lostorfer'sche syphiliskoerperchen. Wiener. med. Wochenschr. 1871, Nos. 8 and 9] repeated the investigations of Lostorfer upon thirty-five patients; he denies them, and the chemical reactions that he indicates prove the fatty nature of the corpuscles. According to Vaida, we observe Lostorfer's corpuscles in the blood of patients attacked by syphilis, leucemia and cancer, where we meet them in greater numbers than in normal blood. According to the author, these corpuscles will be formed by an albuminoid substance, and will have no connection with vegetable parasites.

Biesiadecki [Ueber die Lostorfer'schen Kœrperchen. Wiener. med. Wochenschr. 1872, No. 8] expresses identical conclusions, and observes that Stopczanski had already taken Lostorfer's corpuscles for granulations of paraglobuline.

Blennorrhagia [*Clap*].—Hallier [Zeitschr. f. Paras. 1., p. 179] and Salisbury claim to have found micrococci in blennorrhagic pus; according to Hallier, these elements are likewise found in the blood of patients attacked by blennorrhagic rheumatism.

Pyæmia, septicæmia.—Ziegel [Ueber die fieberregende Eigenschraft des microsporon septicum, Bern. 1870]. This work is important and contains all the history of the question.

Fever, Puerperal.—Mayrhoffer [Gez. de Wiener Ærtze., 1863, No. 4] has described the abundant existence of vibrions in the uterus of females attacked by puerperal fever.

Tubercules.—Bechamp and Estor [Acad. des sc., Nov. 1860] claim to have observed microzyma in tuberculous parts of lung.

DISEASES OF THE SKIN AND MUCOUS MEMBRANES.

Weinflog [Beitræge zur Kenntniss der pilzeinwanderung auf die menschliche. Haut. Zeitschr. f. Paras. vol. 2, p. 162; 2, p. 111] occupied himself especially with the study of parasites of the skin. I think it is useless to dwell here on the subject of pityriasis rubra, versicolor [microsporon furfur], which is known to all readers.

TINEA, FAVUS.

Tilb. Fox [Edin. Med. Journ. April, 1866] admits the identity of the trichophyton and of the achorian, and claims to have transmitted a trichophyton into an aspergillus in a simple case of Herpes circina. The same author declares he has observed the identity of Herpes circina of Tinea tonsurans [Trichophyton tonsurans and Tinea decalvante Trichophyton].

Pink [Vien. Med. Zeitung, No. 3, 1866] sustained a similar theory, and claims to have developed cutaneous affections, and especially herpes tonsurans, by transporting the fungi of favus.

C. Stiles [New York Med. Rev. 11, 1867] inoculated himself with the crust of favus, and was attacked, six days afterwards, by an eruption of herpes circina. Purser has published an analogous observation, followed by an identical result.

Anderson, [Brit. and Foreign Chir. Rev. July, 1866] on the contrary, has obtained results opposed to the preceding; he made successive inoculations with the fungi of favus, herpes tonsurans and pityriasis versicolor; each time the fungi reproduced the identical specific disease to that which had been inoculated. Peyritsch [Oest. Med. Jahrb., 1869, Heft. 2. p. 61] made a series of inoculations, and arrived at identical results.

PARASITIC DISEASES OF THE NAILS.

Cnychomycosis.—Baum and Meissner have studied this question. According to them the disease observes a preference for patients attacked by favus or herpes tonsurans. See also regarding this subject, Forester and H. Fagge (Transactions of the Clinical Society of London, vol. 1. p. 77); and Waldenstroem (Nordisk, Medic. Arkiv., vol. 2, No. 20. p. 26. 1870).

PARASITES OF MUCOUS MEMBRANES.

Parasites of the Mouth.—It is useless to dwell here upon leptothrix buccalis and oidium albicans. Maurice Reynaud has lately described a new parasitic affection of the lingual mucous membrane (Union, No. 77-78, July 1869). The author compares the parasite that he has observed with the trichophyton tonsurans.

Dental Caries.—Klotzsch (Zeitschr. f. Paras., vol. 1, p. 256-257) has inoculated healthy teeth with success with the fungi of dental caries (leptothrix buccalis). See regarding this subject the work of Leber and Ordenstein (Delahaye, Paris, 1868,) and Hallier (loc. cit. p. 291).

Parasites of the Stomach and Intestines.—It is useless to return here to the sarcina and to the facts indicated by the subject of typhus and of cholera. We will only speak of the work of Waldeyer [Virchow's Arch., vol. 52, 541, 1871] upon a disease that this author designates by the name of mycosis intestinalis. He observed three patients who presented the following symptoms: 1st. Choleriform symptoms accompanied by cyanosis, followed by death at the end of two days. In this case there were ulcerations in the stomach and intestine, hypertrophy of the spleen, and abdominal ganglions; he found in the intestines fungi similar to zoogloea; 2ndly. Fever with stomatitis, splenic hypertrophy, afterwards cyanosis; death at the end of five days. He found the spores zoogloea in the ramifications of the portal vein; the small vessels of the skin were closed by similar parasitic elements, which gave rise to true indurations. There were thrombi in the liver, kidneys, lymphatic ganglions, etc. 3rd. He found colonies of bacterians in both kidneys.

Hallier observed fungi in the diarrhea of children which were related to those found in cholera. (Zeitschr. f. Paras. vol. 1, p. 174).

Fungi of the Ear.—Hagen (Ein neuer Ohrpilz. Zeitschr. f. Paras. vol. 1, p. 195) and Hallier have described fungi belonging to the ear.

Gruber, of Vienna, describes the frequent existence of fungi —especially aspergillus—in the ear. (Lehrbuch der Ohrenheilkunde, p. 316, and Karsten, Monatschrift fur Ohrenheilkunde, 1870.)

Parasites of the Eye.—Helmrecht and Hannover have described a special fungi in tears (leptomitus oculi). Ellinger (Virchow's Arch., 27, p. 98, 1863) describes a parasite of the eye, which occasions a very persistent inflammation of the eyelids, penetrating as far as the bulbs of the hair. It is easy to pull out the diseased hairs, of which the tumified root contains the spores in great numbers. Græfe (Jahrb., 105, p. 204) likewise found fungi similar to favus in the lacrymal canals.

Parasites of the Genital Organs.—Hausmann (Die parasiten der Weiblichen geschleetsorgane des Menschen, Birlin, Hirschwald, 1870) has published a series of very interesting investigations upon the varieties of fungi which are found in the genital organs of women. The author found vibrions, bacteriens and leptothrix [Think, rash and libidinous youth, and hesitate before entering, after this astounding revelation. If thou still persist in going, do it under cover of a binocular, provided with a 16th objective.] He was able to transport leptothrix from one woman to another, but the penetration of the penicillium spores was followed by no result.

The author was likewise able to transplant from the oidium albicans, which is very common among pregnant women, to healthy women. He claims that during confinement this fungi may pass from the vaginal walls of the woman into the mouth of the child, and thus occasion thrush. However, the author avows that some distinctive characteristics exist between the fungi of thrush and that of a woman's vagina.

See, regarding this subject, in conclusion, the works of Pari (Lo sperim 10, p. 309).

URÆMIC TOXÆMIA IN AN INFANT, AGED FOUR MONTHS.

By Dr. J. M. Swetnam, Kirksville, Missouri.

On the morning of the 19th of Sept., 1872, I was, while passing, called in to see infant daughter of Mrs. C., aged four months, who, she informed me, had not been well for several days. The child was not to say a healthy one, and had depended upon the bottle for its living. Once or twice I had been called in before, and a simple laxative or carminative had been sufficient to restore it to its usual health. This time, being in a hurry, I asked the mother a few questions, and hastily coming to the conclusion that there was not much the matter with the babe, prescribed a laxative and diaphoretic, and went my way thinking nothing more of the matter.

The next p. m. (20th), the child's father came to me and said it had been better until that morning, but it now seemed worse. Upon asking him in regard to the secretions, he stated that he did not think it had made water all day. I prescribed inf. buchu and sent him away. At 10 p. m., he came in haste, and requested me to go to his house. Upon arriving, I found the child suffering the most intense agony. There was already evident symptoms of uræmic intoxication. Upon inquiring regarding the action of the kidneys, the mother did not remember of any water having been passed for several days. An examination of the urinary bladder proved it to be entirely empty. The diagnosis was plain,—"suppression of the urine."

The little sufferer was parched with fever; its eyes perfectly clear ;pupils slightly dilated; conjunctivæ natural; pulse high, and countenance expressive of great pain. There was no disposition to sleep, and it cried out constantly, yet shed no tears; and it clutched at, and drank with avidity everything which was given to it. I made every effort in my power to induce the secretion of both urine and perspiration, using hot baths, wrapping in blankets, counter irritation, etc. etc. These producing no beneficial effect, I gave potassa, tart. of antimony, and spiritus nit. etheris, in free doses, every hour, with no better results. At no time was the child quiet for more than a few minutes at a time, while the symptoms were constantly growing worse.

6 o'clock a. m., Sept. 21st. Bladder still entirely empty.

Under the circumstances, I thought myself justifiable in administering an opiate to quiet the pain, if possible, but the relief only lasted for a few minutes at a time. Its breathing soon became stertorous.

At M., I had Dr. Grove called in. The bladder was still entirely empty; jactitation extreme; and the cries reduced to moans. Nothing further recommended by the Dr. but to extend the counter irritation along the whole length of the spine. The conjunctivæ of the upper portion of the eye-ball still clear, though that of the lower was becoming slightly injected. Partial paralysis of the left palpebra.

The patient continued to grow worse until 4 A. M., 22nd, when coma set in, followed by death at 6 A. M., Sept. 22nd.

The peculiarities about this case are the tender age of the patient and the cause which brought about the result. I have never before met with a case of uræmic poisoning in one so young, nor do I remember of reading of anything of the kind in the experience of other physicians.

Cause:—The child was of a scrofulous cachexia, but there had been nothing peculiar about the urinary apparatus or its action until the present attack. Seven days before the child's death, its mother had taken it to a photograph gallery for the purpose of having its picture taken; and notwithstanding the room was cool and damp, she stripped the infant's arms and the upper portion of the breast bare—the only protection being dress, "with low neck and short sleeves;" and from that time the child was not so well. The conclusion to which I have arrived is that the stripping and sudden cooling of the child stopped at once the action of the sudorific glands, thus requiring a double amount of eliminating upon the part of the kidneys—more than they were capable of performing; consequently the kidneys became congested, the secretions checked, and finally stopped entirely, necessitating the accumulation in the system of poisons, particularly urea, formed by the disintegration of tissue sufficient to overwhelm and destroy the vital powers.

It is possible, too, had I taken the time when first called to the patient to make a thorough examination, I might have discovered the actual trouble, and, by using prompt measures, saved the child. Had I have done so, I am sure I should have felt better satisfied. And should this fall into the hands of any brother practitioner who is in a habit of jumping at conclusions, even if he *is* in a hurry, I hope he will profit by my experience. "By others' faults, wise men correct their own." If a case is worth attention at all, it is worth close attention.

GUN COTTON AND ITS PREPARATIONS.

A number of experiments were tried, with a view of ascertaining the relative proportions of cotton and acids, together with the proper time for maceration necessary to produce a cotton which should combine the largest yield with the highest explosive power and solubility. The following formula was at length adopted:

Raw Cotton	2 parts
Carbonate of Potassa	1 "
Distilled Water	100 "

Boil for several hours, adding water to keep up the measure; then wash until free from any alkali, and dry. Then take of—

Purified Cotton	7 oz. av.
Nitrous Acid,* s. g. 1.42	4 pts.
Sulphuric Acid, s. g. 1.84	4 "

Mix the acids in a stone jar capable of holding two gallons, and when cooled to about 80 deg. Fahr., immerse the cotton in small portions at a time; cover the jar, and allow to stand four days in a moderately cool place (temp. 50 deg. to 70 deg. Fahr.). Then wash the cotton in small portions, in hot water, to remove the principal part of the acid; pack in a conical glass percolator, and pour on distilled water until the washings are not affected by sol. chloride barium; drain and dry. Yield, 11 oz. av.

This cotton is perfectly white, of a harsh, gritty fibre, very explosive, leaving scarcely any ash; soluble in ether, ether fortior, acetic ether, glacial acetic acid, and in a mixture of alcohol and ether varying from one part ether to three parts alcohol to pure ether itself. If a cotton superior to this is desired, it may be obtained by treating this cotton with an additional proportion of the mixed acids, washing and drying as before. The cotton gains about one per cent. in weight, becomes perfectly soluble, and is so free from any ash as to scarcely scorch a sheet of white paper it may be burnt on. Both this and the previous gun-cotton may be ignited on gun-powder without exploding it. The advantages claimed for this cotton over that of the U. S. P. are, that it is perfectly soluble, very explosive, cheap, its manufacture is much more easy, requiring but little time and attention, and turning out a superior product with large yield and less cost.

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*Nitric, saturated with nitrous acid.—ED. AMER. JOUR. PHARM.

The subject of collodion next claims our attention, it being the most important pharmaceutical preparation of gun cotton. The applicability of gun-cotton in ethereal solution to the dressing of wounds, inflamed surfaces, etc., was first made known by Dr. Horace Maynard, of Boston. Its valuable properties soon commanded attention, and at once supplied a want long felt in the medical profession. No better formula for collodion can be found than that of the U. S. P. Using the cotton prepared as before mentioned, it left nothing to be desired.

Collodion can also be made the vehicle for other medicines. Only those remedies which are used externally, of course, can be administered in this manner. Having made a number of experiments on this subject, I present the following formulæ, several of which I think are new:

STYPTICS.

STYPTIC COLLODION.

℞ Tannin, ℥ij.
Stronger alcohol, f℥iv.
Stronger ether, f℥xij.
Soluble cotton, ʒj. ℈ij.
Canada balsam, ʒj.

Introduce the cotton into a suitable bottle, pour on it two fluid-ounces of alcohol; shake well; then add ten fluid-ounces of the ether; agitate frequently until dissolved. Dissolve the tannic acid in a mixture of the remainder of the alcohol and ether; mix with the first liquid; add the balsam; allow to stand until clear; then pour off.

COLLODION WITH SESQUICHLORIDE OF IRON.

℞ Sesquichloride of iron, ʒj. grs. iv.
Stronger alcohol, f℥iv.
Stronger ether, f℥xij.
Soluble cotton, ʒj. grs. iv.

Into a suitable bottle introduce the cotton; pour on two fluid-ounces of the alcohol, and shake well; then add the ether, and agitate frequently until dissolved. Dissolve the sesquichloride of iron in the balance of the alcohol; mix with the prepared collodion.

ANODYNES.

COLLODION WITH ACONITE.

℞ Pulv. aconite root, ℥ij.
Ether, f℥vj.
Soluble cotton, ʒj. grs. ix.
Stronger alcohol, q. s.

Mix the ether with two fluid-ounces of alcohol, moisten the aconite with one fluid-ounce of this, pack in a percolator and percolate with the balance, pouring on q. s. alcohol to recover eight fluid-ounces, in which dissolve the cotton.

COLLODION WITH BELLADONNA.

℞ Powdered belladonna root, ℥ij.
Ether, f℥vj.
Alcohol, q. s.
Gun-cotton, ʒj. grs. iv.

Mix the ether with two fluid-ounces of alcohol; moisten the belladonna with one fluid-ounce of this; pack in a percolator and percolate with the balance, pouring on q. s. alcohol to recover eight fluid-ounces, in which dissolve the cotton.

ANTISEPTICS AND DISINFECTANTS.

COLLODION AND CARBOLIC ACID.

℞ Carbolic acid, ʒj.
Ether, f℥ij.
Stronger alcohol, f℥ij.
Gun-cotton, ʒj. grs. iv.

Dissolve the gun-cotton in the ether and alcohol mixed, and then add the carbolic acid.

COLLODION WITH SULPHO-CARBOLATE OF ZINC.

℞ Sulpho-carbolate of zinc, ʒj.
Ether, f℥vj.
Stronger alcohol, f℥ij.
Gun-cotton, ʒj. grs. iv.

Introduce the cotton into a suitable bottle; add one fluid-ounce of alcohol; shake well; add the ether, and agitate frequently until dissolved. Dissolve the zinc salt in the balance of the alcohol, and mix with the prepared collodion.

COLLODION WITH THYMOL.

℞ Thymol, ʒj.
Ether, f℥vj.
Stronger alcohol, f℥ij.
Gun-cotton, ʒj. grs. iv.

Dissolve the cotton in a mixture of ether with part of the alcohol, dissolve the thymol in the balance of the alcohol, and mix.

STIMULANTS IN CUTANEOUS DISEASES.

COLLODION WITH IODIDE OF MERCURY.

℞ Iodide of mercury, ʒj.
Iodide of potassium, ℥ss.
Alcohol, f℥iv.
Ether, f℥iv.
Gun-cotton, ʒj. grs. iv.

Triturate the iodides togther in a mortar; add the alcohol boiling, and rub until they are completely dissolved. Then add the gun-cotton, lastly the ether, and agitate frequently until the cotton is all dissolved.

STIMULANTS AND RUBEFACIENTS.

COLLODION WITH ARNICA.

℞ Pulv. arnica, ℥iv.
Ether, f℥xij.
Stronger Alcohol, q. s.
Gun-cotton, ʒij. grs. viij.

Mix the ether with four fluid ounces of alcohol; moisten the arnica with q. s. of this; pack in a percolator, and pour on the balance, following with alcohol until sixteen fluid-ounces of tincture have been recovered; to this add the cotton, and agitate frequently until dissolved.

COLLODION WITH CAPSICUM.

℞ Grd. capsicum, ℥iv.
Ether, f℥xij.
Stronger alcohol, q. s.
Gun-cotton, ʒiss. grs. x.

Proceed as in collodion with arnica, recovering sixteen fluid-ounces of tincture, in which dissolve the gun-cotton.

COLLODION WITH MEZEREON.

℞ Mezereon, ℥iv.
Ether, f℥xij.
Alcohol, q. s.
Gun-cotton, ʒij. grs. viij.

Mix the ether with four fluid-ounces of strong alcohol, and in this allow the mezereon to macerate one week. Drain; pack tightly in a conical percolator; pour on the separated liquid, and follow with enough alcohol to recover sixteen fluid-ounces of tincture, in which dissolve the cotton.

COLLODION WITH SAVIN.

℞ Powd. savin leaves, ℥iv.
Ether, f℥xij.
Alcohol, q. s.
Gun-cotton, ʒij. grs. viij.

Proceed in the same manner as collodion with capsicum.

COLLODION WITH BLACK PEPPER.

℞ Grd. blk. pepper, ℥iv.
Ether, f℥xij.
Alcohol, q. s.
Gun-cotton, ʒij. grs. viij.

Proceed in the same manner as in collodion with capsicum.

VESICANTS.

COLLODION WITH CANTHARIDES.

℞ Powd. cantharides, ℥iv.
Ether, f℥xij.
Stronger alcohol, q. s.
Gun-cotton, ʒij. ℈j.

Moisten the cantharides with a small portion of the ether, and pack in a conical percolator. Then pour on the balance of the ether, mixed with four fluid-ounces of alcohol, and follow with enough alcohol to recover sixteen fluid-ounces, in which dissolve the gun-cotton.

These collodions can be used as substitutes for many of the officinal plasters, having the advantage of occupying a small bulk, ready adaptability to any surface, and powerful therapeutic action.

I have endeavored, as far as possible, to give some practical information on a branch of pharmacy of which comparatively little is known. The subject is, I think, an important one, since gun-cotton and collodion occupy a high position in both medicine and the useful arts, and to its elaboration and useful application too much study cannot be devoted.—CHARLES H. MITCHELL, in an inaugural essay published in the *American Journal of Pharmacy*, June, 1872.

BIOLOGICAL AND MICROSCOPICAL SECTION OF THE ACADEMY OF NATURAL SCIENCES.

Vice-Director JAMES TYSON, M. D., in the chair. June 3, 1872.

Present, Messrs. I. Norris, Wells, McQuillen, J. G. Hunt, Buckingham, and Richardson.

Donations of photographs of the ninth and nineteenth bands of Nobert's test-plate, and also of a "Report on Two Cases of Cancer," were received for the museum of the Section from Col. J. J. Woodward, M. D., of the Surgeon-General's Office, Washington, D. C.

On motion of Dr. J. G. Hunt, it was ordered that a vote of thanks be transmitted to Dr. Woodward for his generous contributions to the museum of the Department.

Dr. Hunt inquired of the members what they thought was the comparative value of the two similar plates accompanying Dr. Woodward's "Report on Two Cases of Cancer," and stated that he believed the doctor was desirous of obtaining the opinions of practical microscopists in regard to the relative perfection of the two modifications of the Albertype process therein employed. After some discussion, the subject was postponed, to allow a thorough inspection of the prints.

The Director, Dr. Tyson, then requested Dr. Hunt to take the chair, and proceeded to read an interesting paper on Urinary Microscopy, especially with regard to its value in the diagnosis of disease without the aid of a chemical examination of the fluid.

On motion, it was referred to a committee composed of Drs. McQuillen, Richardson, and I. Norris.

Dr. Richardson endorsed the views contained in Dr. Tyson's paper as quite in accordance with the results of his own experience, and strongly expressed his conviction that it was just as foolish to expect in any case that the microscopic investigation, alone and unaided by a knowledge of the history, local and general symptoms, hereditary tendencies, etc., should solve all the problems of renal disease, as it was to depend exclusively upon a stethoscopic examination of the lungs when required to make a diagnosis between the various pulmonary affections.

Dr. Hunt remarked that it seemed to him we had quite too much neglected the study of the pathological structure of the kidney as connected with disease of the urinary organs.

Dr. McQuillen inquired whether any of the members present had attempted to make an injection of the kidney from a case of Bright's disease, and, if so, whether they had succeeded in injecting the Malpighian corpuscles.

Dr. Tyson said that he had not as yet attempted to inject kidneys from well-marked cases of Bright's disease, and added that in healthy human kidneys he had found the cold injection of Prussian blue, as advised by Dr. Beale, to work well, although for some unexplained reason it was more difficult to obtain a good result in the kidney of man than in that of the pig.

Dr. Richardson mentioned that some ten years ago Dr. Wm. F. Norris and himself, while resident physicians to the Pennsylvania Hospital, had made numerous more or less successful experiments at injecting human kidneys; one of which was, he believed, from a case of Bright's disease in its early stages. He thought, however, that in many examples of that affection, especially when marked cirrhosis of the organ existed, it would be impossible to inject the Malpighian corpuscles, on account of the obliteration of their vascular tufts by the contraction of their thickened capsules.

Dr. Hunt stated that he also had experimented in the injection of kidneys, but had been much dissatisfied with the syringes now in use, and believed that only some modification of the water-pressure or air-pressure apparatus could answer the purpose efficiently.

Dr. Tyson observed that the process with the acid carmine injection advised by Dr. Beale had utterly failed in his hands, and he did not see how any form of apparatus, or any manipulation of the fluid, could render it a satisfactory mode of injecting.

Dr. McQuillen said his object in asking the question was on account of the fact that he had failed in an attempt to inject a kidney handed to him by Dr. William Pepper, with the statement that the patient died in the Philadelphia Hospital from Bright's disease. Every step in the performance of the experiment had been conducted with the greatest care. It was the first and only time, however, that he had endeavored to inject a human kidney; and he wished to know whether the result was due to a change in the structure of the organ, or to inexperience on his part; having injected a number of sheep's kidneys prior to this, and with uniform success, he had been disposed to attribute the result to the former rather than to the later cause.

Dr. Hunt thought the difference in favor of Dr. Beale's results might be attributed to his scrupulous care in using none but fresh animal tissues.

Dr. McQuillen remarked that in his experiments upon the kidneys of sheep, he had taken great pains to insure this important condition for success, visiting slaughter-houses to procure his specimens immediately after the animals had been killed, and proceeding at once, without loss of time, to inject the vessels. His results had, in consequence, been, as a rule, very satisfactory, even his first attempt proving a successful one.

Dr. Tyson further observed, in reference to the acid carmine injection, that, whilst he recognized the advantage of staining the germinal matter of the vessels with an ammoniacal solution of carmine, and then filling the blood-vessels with Prussian-blue fluid, he looked upon this mode of procedure as quite a different method from the process with the acid carmine mixture.

Dr. Hunt called attention to a specimen he had arranged beneath one of the microscopes, exhibiting a transverse section of some of the gastric tubuli of the pig's stomach, remarking that it was still a mooted point whether two sets of glands did exist in the stomach; and, although he had of late years made numerous investigations for the purpose of determining this question, he did not as yet feel satisfied in regard to it, although so far at least he had been unable to detect more than one kind of these glandular organs.

Dr. Tyson said that the literature of the subject, which he had recently had occasion to consult, was very much involved, and that he believed a rich field was open for research in this direction. —*Medical Times.*

NOTES OF HOSPITAL PRACTICE.—INFANTILE PARALYSIS.

Surgical Clinic of Prof. S. D. GROSS. Reported by FRANK WOODBUTY.

A pale looking boy, thirteen months old, was brought to clinic, May 4, from New Jersey. There was complete paraplegia of the lower extremities, and but little power of motion existed in the arms. He had been afflicted in this way almost from birth. He had control of the sphincters of the bladder and rectum, and the digestive function was well performed, although his appetite was poor. The temperature of the affected limbs was normal, but their muscles were atrophied. His growth seemed retarded, and his body was poorly developed. Though more than a year old, he had cut only six teeth. He appeared anæmic.

℞—Tinct. ferri chloridi, f℥j
Tinct. nucis vomicæ, f℥ij
Hydrargyri chlorid. corrosiv., gr. iv. M.

S.—Take five drops three times daily in a teaspoonful of sweetened water.

℞—Ung. hydrargyri, ʒiij
Cerat. simplicis, ʒv
Veratriæ, gr. vi. M.

S.—Put a piece the size of a marrowfat pea, twice a day, over the entire spine and along the back of the limbs.

Apply the ointment gently at first, until the parts become accustomed to its use. Wash the child every day with tepid water containing a tablespoonful of common salt to the quart. After bathing, wring the end of a towel out of cold water, and with it strike the entire surface of the body, quite smartly, until the skin is reddened. This treatment to be continued for a a month; at the end of which time his mother was directed to bring the child back.

This is a case of a variety of nervous affection known as infantile paralysis. In this affection both lower limbs are generally attacked, although the loss of power may not be equal on the two sides, one leg possessing more motion than the other. The paraplegia, however, is sometimes complete. In all these cases the sensibility of the parts is preserved, or if affected at all is never entirely destroyed. The loss of power extends to the muscles of the thigh, and produces inability to flex the limb upon the pelvis, and may include the perineal muscles, causing incontinence of urine and want of power to retain the contents of the rectum. This disease is met with in young children about ten months old, occurring either during teething or a little before or after, from which circumstance it derives the name of infantile paralysis. Its attack is generally sudden and without previous warning. The child is put to bed at night apparently well, with a good appetite, and nothing to indicate the onset of the disease. During the night he, perhaps wakes up thirsty, and appears restless and feverish. When the mother goes to him in the morning she finds the lower limbs powerless and generally lowered in temperature. The affection is generally confined to the lower extremities, very rarely implicating the arms. It may be limited in its extent to one limb, or it may involve all the extremities, making the child perfectly helpless though still retaining its intelligence.

The pathology of the affection is manifestly some lesion of the spinal cord, the brain being unimpaired in the exercise of its functions, and the special senses unaffected. The suddenness of the attack, and the paralysis of a set of nerves taking their origin from a particular portion of the spinal cord, point to a lesion affecting a limited extent of that structure or its membranes. By inflammation of the theca, generally the arachnoid, there is produced an effusion of serous fluid into the subarachnoidean space, which infiltrates the surrounding areolar tissue. This inflammation extends to the sheaths of the nerves, producing thickening. In this way the nerves are compressed by the effusion and by their investments in the intervertebral canals, thus interrupting the nerve-fluid or current. Paralysis follows in those muscles which obtain their nervous supply from trunks which have their action interfered with at the seat of the disease.

This affection is very obstinate, and does not respond well to treatment; in the majority of cases, the paralysis remains, crippling the patient for the rest of his life. After some time, the muscles become soft and atrophied, and their fibres finally undergo fatty degeneration. When this condition is fully established the muscles are changed, and have lost the power of performing or regaining their proper function. The case then is not amenable to treatment, and the patient will remain a cripple for life. The health generally continues unimpaired, and nutrition, other than in the affected parts, is well carried on. The other portions of the body develop in size and strength with the growth of the child, forming a striking contrast with the paralyzed limbs, which retain their original size, or are slightly atrophied.

However, before this condition of fatty degeneration is complete, the patient may improve by judicious and persistent treatment. The condition of the muscles may be ascertained by means of the galvanic current, which is also our most efficient therapeutic agent in the treatment of these affections. If the integrity of the muscles is not entirely destroyed, they will respond to the application of electricity, which is to be applied as a means of diagnosis. If they are insensible to the current and do not contract, the prognosis is unfavorable. To derive the greatest benefit from electricity in the treatment of this affection, it is essential that the interrupted current should be applied as early as possible in the course of the disease, and used once or twice every day. Our attention, however, should be directed mainly to the spine. If my opinion regarding the pathology of the affection is correct,—that it is produced by pressure, due to inflammation, on the nerves at their origin,—then counter-irritants and sorbefacients would be useful. Bleeding, either by leeches or cut cups, and blisters, produce good effects if used early, and some benefit may be derived from rubefacients and dry cupping immediately over the lesion. To my mind, the best and most efficient means of treating the disease is by establishing, with a red-hot iron, a good issue over the affected spot. The eschar formed comes away in a few days, leaving an ulcer, which should be encouraged to discharge freely. I am satisfied that this agent is not used so much as it should be. It is a valuable adjunct in the treatment of nervous diseases caused by subacute inflammation, or by a deposit the result of inflammation existing in the spinal cord or its membranes. It should have the preference over any other means of causing an issue, in the treatment of all protracted and obstinate diseases where a counter-irritant or revulsive effect is desired,—as in Pott's disease of the spine, or in hip-joint disease, where as a topical agent it is unequalled. During the treatment, the muscles must be rubbed and shampooed, and steadily exercised with the battery. The general health must be maintained by alterants and tonics, if necessary. Special attention must be paid to the secretions, and the patient should be carried daily in the fresh air. If the disease has not progressed too far, by careful attention to the nourishment of the little patient, and perseverance in the line of treatment indicated, the best results may be hoped for.

[From the New York Medical Record.]

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, June, 20, 1872.

Dr. E. R. Peaslee, President, in the Chair.

THE CURRENT MATERIA MEDICA.

Dr. E. R. Squibb then made the following remarks on "The Current Materia Medica:"—

Materia medica should be thoroughly studied in connection with therapeutics, and the student should never be suffered to graduate without paying particular attention to this branch of the curriculum. There is a tendency among some to almost ignore the materia medica, which is all wrong; it should be studied up to the times. Take, for instance, *hydrate of chloral*, which was first fully investigated and then applied to practical use. Persons are apt to use a remedy and extol it in medical text-books and journals without giving it a fair trial, thus creating a fashion in medicine. True progress is entirely different from fashion in medicine. In regard to the subject of *anæsthetics* and the mortality from their use, he has not, in the course of his extensive reading of home and foreign journals, seen a case of death in this country, and only two or three abroad during the year. This is accounted for by the little use of chloroform, and the predominance of ether; and the day is coming when the former will be confined only to the branch to which it belongs —the obstetrical.

Bromide of potassium is more within the control of the profession than it was, and has taken its proper place in the materia medica. Many times it is given in too small doses and no good effect is produced. The doses should be large enough to get up bromism; sometimes fifteen or twenty grains will do it, but in his experience forty, fifty, or sixty grain doses are called for; as a hypnotic, twenty-five-grain doses are essential.

He recollected a remark of Prof. Van Buren, that in order to get iodinism he gave iodide of potassium in sufficient doses; as high, sometimes, as one-ounce doses. The same rule is applicable to the administration of bromide of potassium.

Alkaloids, or active principle of drugs. No one expects to get from the salts of morphia that relief as from pure opium itself—although one grain of morphia equals six grains of opium. He believes that good opium will be the standard of the profession after all. The chemical processes in use for abstracting the alkaloids deteriorate the anodyne properties, and are destructive to the anodynes of our fathers. If practitioners were better satisfied to use the pure original anodynes, without being tortured, the results would be more satisfactory. It has been a great fashion to have fine-looking white alkaloids, which are made at the expense of medicinal qualities; for every time they are bleached by the chemist a portion of the valuable property is lost.

Another subject of importance is the *dietary of the sick.* The various extracts of meat sold at the stores are of little value; there is not one of them, which is advertised, which will bear out the remark of Dr. Christison, "they arrest waste, but do not keep up the supply." His impression is, that there is not as much against the use of solid food or aliment in disease as has been said against it. The stomach is not a chemical laboratory, or "a kitchen for cooking food," as Abernethy wisely remarked. Food should not be subjected to the ordeal of chemists, as the fashion is.

Among the articles that have been introduced in the dietary department, and have taken a firm stand in the materia medica, is *pepsine.* Generally, however, patients have been in the habit of taking starch rather than pepsine. Once get up a reputation concerning a certain variety of this agent, the manufacturer has a good start for making money. Some specimens examined were good and others were bad. The name of the maker is no guarantee, as it may be good at one time and poor at another. While the proprietor is looking after the money column, the manufacture is entrusted to another. The fresh supply of pigs' stomachs must come from the western pork-markets.

The pancreatic emulsions and preparations of bismuth and pepsine, so fashionable now, cannot be recommended; bismuth and pepsine cannot exist together. Those fashionable mixtures of beef and iron—as Vinum cibi, Vinum cibi et ferri cum cinchona, etc.—are gross frauds; only money is in them. Hardly any cod-liver oil will pass muster except it is tasteless; and his impression is that many of these preparations are not cod-liver oil at all, only oil made up for the market. Good oils should neither be too dark nor too light, but of a medium color. The dark varieties are made of livers in a state of decomposition. There are good cod-liver oils in market which come from Norway and Newfoundland. The reason that the Norwegian oil is less rancid than others is because it is never made at a less temperature than fifty degrees; consequently decomposition is avoided. Oil, when in use, should be kept in a cool place, as a refrigerator, and after each dose is given the glass should be thoroughly washed. Small pieces of ice put in the doses of disagreeable substances, like cod-liver oil, renders the agent almost tasteless. Those physicians who eschew the fashionable remedies take to the syrups, such as Aiken's syrup, etc. The lacto-phosphate of iron is based on fallacies like the others; but it is very taking, and is advocated by Hosford and others. Physicians are anxious to get solutions of phosphorus into the stomach, but before it gets there it becomes oxidized.

Another popular fallacy of the day is the use of sugar-coated pills or medical confectionery. Coroners have found these pills, after death, in the stomach and intestines, undissolved. Medicines should be given in such a shape that they will be quickly dissolved. It is not an easy matter to get the hard coat off the pills. Glycerine should be used in compounding pills, to render them soft. Pills made in this way are easily dissolved in the stomach. He has been astonished that Blancard's pill has been so useful as has been stated—it being covered with a metallic coat.

Medicines in capsules are not to be advocated—they being not easily dissolved.

The use of various forms of divided medicines, particularly "The Divided Medicine Co.'s" preparations, is another fallacy. It is nothing new, but an old way of preparing medicines. This way of dosing might be good if the physician would put the medicine up, but to purchase these preparations of companies is dangerous pharmacy.

Rhubarb in squares, covered with powder, is not desirable. Physicians should get the Chinese rhubarb, in solid state, and then they know what it is.

Disinfectants, like chloralum or chloride of aluminium, are fashionable agents. The sulphate of aluminium is better than the latter, but it is old; so, to popularize it, Prof. Gamgee took the chloride. To improve it in this country, we have taken the name of bromo-chloralum. Wastes of chemical manufactures are to be the source of disinfectants for health-boards. Copperas, or sulphate of iron, and carbolic acid are all that can be desired.

Cinchona barks from India will probably give us all that can be dispensed. Moss planted on the bark improves the quality —called mossine in that country.

Chloral received, about a year ago, a decided check on account of the number of deaths reported from its use; it is a potent agent, and has taken a very proper place in the materia medica.

Cundurango, which received its aid from the State Department at Washington, D. C., has pretty much gone out. That department deserves the reprobation of the physicians of this country. Reports have come back to the discredit of its use.

Nitrite of amyl, introduced by the foreign physicians, and first written about by Dr. Richardson, of London, is a useful remedy. Cases of hemicrania, spasmodic asthma, etc., have been relieved by its inhalation. It is supposed to paralyze the nervous system of the arterioles; from sixty-five to seventy beats may be added in a few seconds by its use. The circulation resumes its usual tone in a few minutes, and the effect of the remedy passes off.

Xylol has now degenerated into a prevention of small-pox, and it is very hard to place a value upon it.

An article which has been recently introduced from Germany —*Rhamnus frangula*—seems to stand between rhubarb and senna, and is useful in constipation. The tincture has been prepared at the instance of Dr. Gray, of Utica, and is a good preparation; but it is better chewed: a few pieces chewed during the day will overcome constipation.

Dr. Gouverneur M. Smith remarked as follows upon "Lactic acid as a cause of disease when employed as a remedial agent."

As relevant, Mr. President, to the subject which Dr. Squibb has so ably presented to the Academy this evening, I will simply offer a few thoughts in relation to a principle which is interesting to the medical profession, on account of the various aspects which it exhibits for our study. Reference is made to the principle known as *lactic acid*. The physiologist regards it as being one of the component parts of several of the normal secretions; the pathologist views it as the *materies morbi* in a so-called diathesis; while the therapeutist receives it from the hands of the pharmacist to employ either *per se*, or in the form of a saline in the relief of disease. It is peculiar in the fact that it is elaborated both in the animal and in the vegetable kingdoms, and can be readily artificially produced.

In the animal kingdom, lactic acid is found occurring as an ingredient of the gastric juice in the proportion of 4.78 in 1000 parts; associated with soda, potossa, and lime, it is detected in the urine in proportions varying from 1.50 to 2.60 in 1000, while the same alkaline lactates appear in the sweat in the ratio of about .317 in 1000. Liebig and Robin affirm that the lactates are to be found and are produced in the muscular tissue. In the vegetable kingdom, Wittstein has observed lactic acid in the solanum dulcamara, and in the fresh sap of the grape-vine. It is unnecessary to allude to the methods of artificially preparing this principle. To Scheele has been attributed the honor of having first isolated this organic acid.

The dose of lactic acid as directed in the U. S. D. is from ʒ j. to ʒ iij. *per diem*, and, as a remedy, has been recommended by Magendie and Handfield Jones in certain forms of dyspepsia and in disorders accompanied by phosphatic deposits in the urine. The salts of lactic acid, as is well known, vary in dose according to the base associated with the acid, and are prescribed at the present time in maladies of very diverse character.

In studying the therapeutical properties of medicinal substances we are naturally led to inquire if the drugs in question possess any toxicological qualities. Now it is with the view of determining whether or not the exhibition either of lactic acid or of its salts is ever attended with disagreeable *sequelæ*, that these thoughts are offered to this Academy, in the hope of eliciting the experience of its Fellows upon this subject. It may not be inappropriate to state the reasons which have recently more particularly called my attention to this inquiry. An article appeared in the *British Medical Journal* of Dec. 23d, 1871; from the pen of Balthazer W. Foster, M. D., Prof. of Medicine in Queen's College, Birmingham, etc., entitled "The Synthesis of Acute Rheumatism." This paper, in the form of a reprint, was a short time ago sent to me by the author, and a few of the interesting statements therein contained are herewith presented as worthy of consideration.

Dr. Foster states that he "was engaged in completing an inquiry into the effects of different drugs on the sugar excretion in *diabetes*," and was led to observe the action of lactic acid. The first patient in whom he specially noted the behavior of the medicine was a man, aged 31 years, who had suffered several months from melituria, and who, on admission to the General Hospital, was passing 180 ounces of urine *per diem*, containing 49 grains of sugar to the ounce. After treatment for two months on a restricted diet, the urine was diminished in quantity to 116 ounces *per diem*, containing but 36 grains of sugar per ounce. The patient was now placed under the influence of lactic acid, fifteen minims at a dose, four times a day, the dose being doubled on the morning of the second day. Before the expiration of forty-eight hours the patient complained of acute pains in the joints, and the medicine was discontinued. As this symptom was regarded as a mere coincidence, the patient, on recovering from the arthritic difficulty, was again placed under the influence of lactic acid. A repetition of the pains was the result, an increased general temperature, while a number of joints presented the appearance of typical specimens of rheumatic arthritis. The medicine was again stopped, and a subsidence of the inflammatory condition was again immediately noticed. During the use of the lactic acid there appeared to be an improvement in the diabetic symptoms, and the patient was placed under a further trial of the drug. It soon became manifest that small doses of the remedy could be tolerated; but if these were increased, rheumatic symptoms would immediately be developed.

While this patient was under treatment, another one presented himself at the hospital, likewise suffering with *diabetes*, who on being placed under the influence of lactic acid was on the fourth day attacked with symptoms of rheumatism. The acid mixture was discontinued, and in two days the patient was relieved of his arthritic complication.

Dr. Foster, in his concluding remarks, says: "In the first case, at least six well-marked arthritic attacks occurred; in the second case, under conditions less favorable for observation as to duration of treatment and place, one well-marked attack occurred. The phenomena corresponded in all respects to those which are characteristic of acute articular rheumatism. They came on when the acid was taken, and ceased when it was discontinued. When moderate quantities of the acid were tolerated, an increase in the dose was succeeded by the painful inflammation of the joints. Coinciding with the development of the articular affection was the appearance of perspiration, at first only slight, but afterwards, in the more severe attacks, copious and acid. These facts have dispelled the last lingering doubt in my mind as to the truth of the lactic-acid theory of rheumatism." Dr. Foster further says: "In health, no doubt, much larger quantities of lactic acid than any given in my cases would be excreted without producing any perceptible disturbance in the bodily functions. The acid would escape by the skin, the kidneys, or, after oxidation, as carbonic acid and water. It cannot be justly argued that the quantities of acid taken by my patients were too small not to have escaped in this way. The conditions under which the drug was given must be borne in mind. In diabetes, we have a state of suboxidation very unfavorable to the conversion by oxidation of new compounds; and in Wright's case this was aggravated by the serious pulmonary complications. Associated with these, there was a dry and brawny state of the skin, highly unfavorable to the elimination of the lactic acid by one of the common channels. Lastly, the well-known persistent acidity of the urine in diabetes points to a pre-existing hyper-acidity of the fluids."

These observations of D. Foster are exceedingly interesting, as tending to show the correctness of the theory attributing arthritis to a lactic-acid diathesis, as so strongly contended by Fuller a few years since, and also as tending to exhibit that lactic acid, as artificially supplied to the system, may induce mischief. No one who has examined the recent literature on the subject of rheumatism can have failed to have had his faith somewhat shaken in the theory to which allusion has just been made. Clinical study of acute articular rheumatism in dispensary, hospital, and private practice has, however, led me to give a preference to the alkaline treatment, and an inclination to the belief in an acid *materies morbi* in the disorder in question. While the different methods of treatment which have of late been advocated for the relief of rheumatism may be as efficient as that known as the alkaline method, nevertheless such success does not prove that the etiological views of Fuller and of others of like mind are incorrect.

For example, in the London Hospital Reports we read of the treatment of rheumatic fever by free blistering, as recommended by Herbert Davies, in which either arm-lets, wrist-lets, thigh-lets, leg lets, and finger-lets of blistering plaster were applied "near to, but not upon every *joint inflamed*, at the very *height* of the inflammatory stage, when the local pains were the most severe, and the constitutional disturbance the *greatest*," or in which strong acetum lyttæ was painted in zones round the joints. Now the chief design of such treatment was to induce an elimination of a *materies morbi* from the blood through serous discharges, and was not with the intent of exciting a mere sanguineous derivation. Furthermore, Dr. Davies advocates a mild alkaline treatment as a useful adjunct to the means just alluded to.

In Guy's Hospital Reports, G. Owen Rees reports cases of rheumatic fever successfully treated by lemon juice. In such instances, we can readily suppose that the alkalies naturally associated with the citric acid were as efficient in correcting an acid diathesis, as are the alkalies when administered either in the form of Rochelle salts or when given in other saline forms as artificially prepared.

Again, in Guy's Hospital Reports there are recorded a number of cases of acute rheumatism occurring in the practice of Drs. Gull, Sutton, and Rees, which made favorable recoveries under a simple mint-water or an expectant treatment. We learn from such facts that patients, when placed under favorable hygienic conditions, will as readily recuperate from acute rheumatism as they will, as is well known, from many other disorders, and convalesce more rapidly than if they had been subjected to meddlesome medication.

These apparently diverse plans of treatment subserve to a certain extent a similar purpose, being, as has been said, either eliminative of, or chemically antagonistic to, some inimical principle. As there has been a pretty general belief that the *materies morbi* of rheumatism was *lactic acid*, we have, in the interesting cases narrated by Dr Foster, such strong corroborative facts as to warrant us in confirming our faith in such supposition.

A question of practical importance here arises, viz., to what extent can we employ either lactic acid or its salts as therapeutical agents without inducing mischief? It is not probable that these articles, if exhibited in ordinary doses during health, would produce any very serious disturbance; Nature is so conservative in her action that such a chemical disposition of them would be made in the economy as to render their resultants innocuous. Nor is it prodable that in every form of disease they are capable of exciting any more trouble than they could if administered under normal circumstances; in some disorders, indeed, when wisely administered, they appear remedial in their action. Though this is true, are there not morbid conditions contra-indicating their employment? In some maladies, the processes of vital chemistry are so disturbed that nearly all the functions are disarranged; now under such circumstances a small additional quantity of lactic acid may prove as toxicological as much larger quantities if taken under normal circumstances.

The salts of lactic acid are now very freely employed, and in disorders very diverse in their nature. Are there not morbid conditions which may contraindicate their exhibition if given either in large doses, or in small quantities frequently repeated and extending over a considerable space of time? For example, if an individual has inherited or has acquired a rheumatic diathesis, is it proper to administer to such a person the agents in question? If there is an apparent idiosyncrasy, inimical to lactic acid, is it not more desirable, when treating patients possessing such peculiarity, for any malady whatsoever, to administer remedies not containing the acid under consideration? If lactic acid artificially administered can excite acute inflammatory action in the fibrous structures of the joints, it is equally liable to induce mischief in the kindred structures of the heart and pericardium. Arthritic inflammation may subside, leaving no permanent trouble in the joints; but if inflammation is once excited in the delicate cardiac membranes, persistent disaster may be the consequence.

There may be other morbid conditions in which the exhibition of lactic acid is contraindicated, as may occur in those suffering from embarrassed respiration, or in those in whom the functions of the kidneys and skin are seriously impaired. Lactic acid, as the natural product of the system may even under such circumstances be eliminated either *per se*, or as broken into derivatives; if, however, a slight surplus is artificially supplied, the latter may immediately assume the character of a *materies morbi*, while in health such addition would be readily tolerated. Unfavorable symptoms by a superficial observer may be regarded as coincidences, their true import remaining uninterpreted.

It is foreign to my purpose to convey the impression that lactic acid, as ordinarily employed, is inimical to the system; for Nature is so conservative in her action as to antagonize small quantities of materials decidedly poisonous in their character; but the facts noted by Dr. Foster are worthy of our attention, and have excited the inquiries which have been thus briefly set forth.

Dr. Van Kleeck inquired of the first speaker if the rhamnus catharticus, or buckthorn, was the same article mentioned by him, viz., *rhamnus frangula.*

Dr. Squibb replied that it was of the same genus, but milder in character.

To the following queries of Dr. Van Kleeck: Whether chloral was apt to become decomposed when exhibited in syrup; whether bromide of sodium was superior to the bromide of potassium as a medicinal agent; and whether the combination of dilute phosphoric acid and the hypophosphites was chemically proper, he having found the latter mixture very useful in his practice—Dr. Squibb answered that chloral should be given in a solution of water; it should not be suspended in syrup, as decompostion was apt to occur. Ice and water was a good vehicle for giving the salines.

In regard to the use of bromide of sodium, enough had not as yet been used to enable one to form an opinion concerning its merits. We have not data enough to change from bromide of potassium to bromide of sodium. In those cases where acne was produced by doses of the former, it would be wise to substitute bromide of sodium.

The phosphoric acid mixture alluded to was not a bad chemical combination. Delatour, of Wall street, several years ago, conceiving that a pleasant medicinal drink would be popular with an enervated class of customers, and also beneficial, consulted him concerning a formula. The result was the manufacture of a phosphoric lemonade, which was extremely popular and useful to the Wall street gamblers, and that class who were worn out in body and mind. Many times they came in exhausted and after partaking of a glass of this brain restorer were enabled to go on with the business of the day with comparative ease. Dr. Gray has said that a tumbler of phosphoric lemonade was useful to him.

ABSTRACT OF A CLINICAL LECTURE ON DISEASES OF JOINTS.

By JOHN WOOD, F. R. S., F. R. C. S., Surgeon to King's College Hospital, and Professor of Surgery in King's College.

[Delivered at King's College Hospital, December 15th, 1871.]

GENTLEMEN,—I intend to take into consideration to-day the interesting subject of Joint-Diseases, as we happen to have some very good specimens of almost all the ordinary varieties in the hospital under treatment; and I propose to contrast and compare them. In one of the patients now before you we have a case of fibrous ankylosis. The joint affected is that of the shoulder.

It occured at an early age, a long time before she applied for advice. When she presented herself at the hospital, the ankylosis had already become established. In certain instances, the formation of ankylosis of this kind is the best thing that can happen

—as in the knee-joint, and to a less extent in the hip, wrist, and ankle-joint. When ankylosis of the fibrous character occurs in these joints after disease, it is as good a result as could be hoped for. Sometimes by operation we can get a movable joint in the case of the hip, and in one or two cases coming under my care we have had a movable joint after excision in the ankle. But in the elbow, and to a less extent in the shoulder, this ankylosis is to be deplored, and it is considered to be a sufficient reason in itself for operation. It is necessary for you to understand fully what the reason is of the different treatment in these cases of joint-disease; to know what you may expect from nature, and when you have got a good result. It is, probably, the first lesson that a surgeon learns in his practice, to know when he has a joint before him that can be benefited by interference and when not. In the case of the shoulder-joint, the results of a fibrous ankylosis are not so serious as in the case of the elbow, because of the extreme mobility of the scapula, which allows a very considerable latitude of motion, The girl before you has a great deal of motion from this cause. In the corresponding hip-joint this could not be, because the pelvis is not so movable upon the trunk; on the other hand, we have here the very important advantage of a firm support. In this girl's shoulder there is a normal position of the acromion process, though, apparently, it sticks out more than the opposite one, because the deltoid below is wasted. I can feel almost subcutaneously the tuberosity of the humerus and the head of the bone. The arm hangs as if paralyzed, and if I hold the scapula firmly, and attempt to move the upper arm upon it, there is almost complete immobility—she must move the whole scapula to move the arm. Ankylosis of a scrofulous nature, giving rise to no abscess, has led to the disintegration of the cartilage, to the fibrillation of the cartilage-cells forming the surfaces of the joint. If it were necessary to give here more motion, we might, under chloroform, break these fibres down; but I am afraid to do this in so delicate a subject, lest more disease should set up, and a worse condition ensue.

This other case is one of anyklosis of a different kind. It is a stiff wrist-joint from alteration of the surrounding structures—spurious ankylosis. We have here had gonorrhœal rheumatism with synovitis, which frequently affects the ankles, wrists, and knees. Some have supposed that it is in consequence of a certain kind of pyæmic absorption from the urethra; some think it of the nature of ordinary rheumatism. I have seen a closely similar result in a rheumatic case without gonorrhœa. It is really rheumatic, and will come on after any lowering disease. In these cases, where it is clearly connected with gonorrhœal discharge, it proves most obstinate and intractable to remedies. In this case it is leading to complete stiffening. The man came to us with the wrist considerably bent as well as stiff, and he has still tenderness and pain on motion; but still I can induce a little motion, and this gives us hope that we shall get a movable joint. The swelling is less than it was, and we have already obtained a straight position by the use of the straight splint. He bears its manipulation better than he could. I stated that the pathological change was thickening about the joint, extending to both flexors and tendons. He cannot bend the fingers beyond a certain point. This is from the same disease in the sheaths of the tendons. When the synovial membrane of this joint becomes diseased, these sheaths are often affected by the same disease, whether scrofulous or gelatinous degeneration or any other. In April last this man had gonorrhœal rheumatism affecting all the joints, but in a few days all the pain and swelling settled in his wrist. The straight splint was kept on for seven weeks. He went to the Orthopædic Hospital, and some adhesions were broken down; he then came into this hospital. We shall succeed in getting a good amount of motion here, and avoid the true fibrous ankylosis which you have seen in the shoulder of the girl. But it requires great patience in both patient and surgeon. The loss of power is specially noticeable in the extensors; the nerve which goes to them goes also to the joint. It is a case of reflex paralysis; consequently, there is a partial loss of the power of the muscles extending the joint. Passive motion must not be pushed too far in these cases—it gives often a great amount of pain. If it produces swelling, it is best to intermit it occasionally; if the patient becomes feverish from any cause, it is best to discontinue it for a day or two. The recent changes of temperature affect persons in health, and still more so patients in the hospitals. We are going through one of zones of aggravation in disease. One would think that warm weather would produce alleviation of a patient's symptoms, but this is not the case. The joint-diseases in the hospital are almost uniformly a little worse in consequence of the recent change to warm moist weather.

Now I would call your attention to three more cases of joint-disease. One is that of Selina Lester, aged 12, a case of severe disorganizing inflammation of the knee-joint. She has been for a long time, off and on, at the hospital with necrosis of the upper end of the tibia. I have operated twice, first removing the popliteal surface of the bone through an opening in front, which led me close to the joint, and I found that the caries passed into the articulation. She had scars on the thigh also; showing probably, old disease in the femur above the knee. The knee is quite stiff, fibrously ankylosed from extension of the disease from the tibia. After the first operation, she had an exacerbation of the joint symptoms—an increase of the amount of fluid in the joint, pain, and swelling, and febrile cachexia; this was probably on account of the contiguity to the joint of the seat of operation. In such a case as this, amputation sometimes becomes necessary; excision will not do, because probably the femur, and certainly the tibia, are diseased along the shaft, and it would be necessary to take away nearly half the bone. This case affords a good example of the way in which joint-disorganization occurs from disease of the constituent bones. Fortunately rest, and good living and treatment, aiding the powers of nature—the *vis medicatrix naturæ*—have enabled us to avoid the hazard of amputation. The knee-symptoms have entirely subsided, and the joint is ankylosed from fibrous adhesions and in the synovial folds, and thickening and stiffening of the ligaments. I do not think there is, at present, complete union of the opposite surfaces; it might be called an "ankylosis of the ligaments."

In another precisely similar case, that of William Jackson, aged 7, in the female ward, there is less hope. Not only is he very young, but he is more delicate, and always has been more hectic and tubercular in appearance. Although we have made free openings, and removed portions of dead bone from an abscess in the upper end of the tibia, there still remains an effusion of fluid into the joint—I hope it is not pus. The joint is assuming all the characters of active disease; there is great tension in the anterior part, causing extreme pain by pressure on the nerves of the synovial membrane No doubt the tension on the synovial membrane is far greater from this gradual secretion and deposit than from any force that could be artificially exerted by injection. You can discern the outline of the patella and the tendon which leads downwards from the rectus; you can feel that the fluid moves under it; you can make *ballotement;* the patella you can tap against the femur liks a boat bumping on the bottom of a shallow river; the pouch under the crureus is enormously swollen. In cases where the joint becomes diseased from the opening of the abscess of the tibia into it, the swelling comes on faster than when the disease arises in the joint, and it spreads quickly upward. I have sometimes seen the subcrureal pouch not distended at all in such cases. I do not think that you can trace so distinctly the progress of the disease from the femur, however; it is more likely to set up an inflammation suddenly extending all over the joint.

I do not yet see what we shall have occasion to do to this poor little fellow, for he has frequently exacerbations of hectic fever, when he loses flesh and appetite; the tongue and pulse show constitutional irritation, and the temperature rises considerably at night. We may be obliged to remove the limb to save his life; but in children, unless you have very serious cause, you should not lop off a limb, and more delay is proper than in adults.

I come now to another serious case, illustrating another phase of joint-disease. Thomas Baldwin, aged 26, coming from the country, has had swelling of the knee for sixteen months, appearing first above, and not below the knee-cap. It produced much pain, and he had to use crutches The swelling then obscured the knee-cap, sometimes getting well, and then becoming worse; a common history of joint-disease. When he applied for advice here, he was strumous-looking and thin. There was no swelling over the patella, but rather a depression. There was a large swelling, containing fluid, extending up the thigh from the inside of the knee, and it was doubtful whether it communicated with the joint. For some time, I was also rather doubtful whether the fluid was serum or pus, and I determined to satisfy myself by a careful puncture with a narrow-bladed knife dipped in carbolised oil. I found evidence of the presence of flaky, curdy pus, and opened it freely. The abscess went close to the condyles of the femur, and I felt bare bone. There was here tubercular synovitis, which probably originated, or was associated with, exposure of the bone. The bone was not diseased all through, but it had become diseased at the synovial margin. The joint was becoming disorganized.

I first attempted palliative treatment, making a free incision outside of the patella, and there is no doubt that this passed right into the joint. You saw the relief of the symptoms in consequence of these and others incisions. It is quite a mistake to think that an incision into a diseased joint is like admitting the air into a joint that is healthy. In the one case, the patient's symptoms improve; in the other, acute inflammation will set in. Mr. Gay proposed it as a means of treating joint-disease generally; he recommends opening the joint freely, and putting on splints.

You may get occasional cures by doing little or nothing; but in these the treatment may last over five or six years or more. Some say that you will generally get a cure if you wait long enough; but this "long enough" implies the danger of tubercles in other parts of the body, exhaustion, and untimely death. Excision is an alternative, and there may arise the question of amputation; but, considering that, perhaps, one case in four or five of amputation of the thigh dies, and that the mortality of excisions is scarcely, if at all, greater, excision maintains, usually the decided advantage of preserving a limb instead of a stump. I am trying to improve this patient's health, if possible, to enable him to sustain an operation, either excision or amputation. It is a mistake to attempt to interfere during an exacerbation of the disease. If you can wait till the symptoms are quieter, and do the operation then, you will have a much better chance of success.

Lastly, I have to call your attention to another case of joint-disease—gelatinous degeneration of the wrist-joint. I excised the wrist the other day. There we had a swollen, pulpy, elastic mass, not accommodating itself to the shape impressed by the tendons, as a fluid effusion does, but pushing aside the natural structures; in consequence of this, the joint assumes a rounder outline than in fluid effusion. This gelatinous tendency in the synovial membrane affects the sheaths of the tendons in the same way, and you hardly ever find the disease confined to the joint alone. This contributes to produce a rounded swelling, which, in the earlier stage, is attended with hardly any pain. Why is there no pain? Because the elastic deposit separates the surfaces of the joint, invades, softens, and breaks down the fibrous, cartilaginous, and ligamentous structures, and prevents pressure on the nerves of the joint. But pain comes when abscesses form in the softened tissues. They may form all around the joint, and yet not communicate with it. Sir Benjamin Brodie was the first to call attention to this form of disease. It is more intractable than any other. In five cases in which I have performed excision, there have been in three the satisfactory result of a tolerably useful, and, in one case, movable wrist. In another, however, sinuses still remain, and symptoms of pulmonary tubercle have made their appearance.—*British Medical Journal.*

MEDICAL GLEANINGS.

PHOSPHORUS PILLS.—A writer in the *Druggists' Circular* gives the following formula for a pill of phosphorus, by which he says they can be made of small size, at short notice, and to keep without evolving fumes: Dissolve one grain phosphorus in half a drachm of chloroform and rub in a mortar with two scruples powdered liquorice root till all the chloroform has evaporated. Add half a drachm powdered soap and work into a mass with water and divide into 24 pills.

SEX IN ANIMALS.—Professor Thury, of Geneva, Switzerland, declares that he has succeeded in nineteen cases out of twenty in producing the desired sex in cattle. He finds that when the female takes the male on the first signs of heat or at its height, the result is a female issue, and when longer delayed, the issue is a male. The first eggs laid by hens after the tread are females, the later, males. The law is declared to hold also in the human female.

ANIMALCULES IN BUTTERMILK.—Dr. J. P. Brown, of Galt, Ontario, in the *Canada Lancet* for August, gives an account of a family poisoned by drinking buttermilk, which, on examination with the microscope, was proved to contain immense numbers of animalcules. He thinks the germs which produced them were taken in by the cow in the water which she drank, and found their way into her blood through the lacteals. The symptoms were those of narcotico-irritant poisoning, viz.: vomiting, purging, cramps, stupor, etc. We think it much more probable that the organisms were produced in the milk after it was taken from the cow.

BLEEDING IN PNEUMONIA.—When a medical man has to combat this affection, he either confines himself to expectation, or gives large doses of brandy, or takes blood from the arm, according to the school to which he belongs. Of course some regard is to be paid to the particular patient, and to the nature of the prevailing epidemic tendencies; but it still remains very melancholy that such enormous diversity should exist—a diversity which, to a lay observer, would look quite monstrous. However this may be, we think it right to refer to the essay of Dr. Simorre, practising in a country place of France, inserted in the *Tribune Med.* of Paris, January 14th, 1872. Here a series of cases are related, wherein the patients were bled copiously at the very outset, again in four hours, lesser quantities of blood being taken at longer intervals two or three times afterwards. No other treatment than demulcent drinks. All the patients recovered.—*London Lancet.*

THE FORCE OF UTERINE CONTRACTION.—The extreme force of uterine contraction produces a pressure of 3,402 pounds per square inch, which is equivalent to a pressure of 54.106 pounds acting upon a circle of nine and a half inches in diameter, which is assumed as the average area of the pelvic canal. The maximum force used to expel the fœtus, by both uterine and abdominal muscles combined, is estimated by Soulin, by forceps experiments made on a dead body, at 110.23 pounds, a result which is regarded by Dr. Duncan as too large. Dr. Duncan considers 80 pounds as the maximum force ever employed in difficult cases. This would correspond with a hydrostatical pressure inside the uterus of 5.05 pounds per square inch, which is greater than the uterine muscles, unaided, are capable of producing.—*Dublin Quarterly Journal Medical Sciences.*

VEGETABLE GROWTHS IN THE EAR.—Since the year 1844, when the attention of the profession was first called to the subject, the growth of minute fungi in the ear has been reported to be a common cause of disease of that part. The meatus, canals, and tympanum are sometimes covered with the growth in the form of white or yellow mold on their surface. Cases of diseased ear occur in which are detected the fungus Aspergillus. Tinnitus, inflammation, and the accumulation of wax are the attendant symptoms. The treatment consists in the application of a solution of carbolic acid, five grains to the ounce of water. As it is found impossible to transplant the ectophytes to a healthy ear by inoculation, we suspect they are the effects of disease rather than the cause.

PREVENTIOM OF MAMMARY ABSCESS.—W. R. G. Samuel, in a communication to the *Lancet*, commending the use of olive oil as a local application to prevent mammary abscess, says—

"The mode I usually employ is to cut a piece of lint the size of each breast, allowing it to come well under the axilla, leaving a hole for the nipple to pass through for the infant to suck. Before applying the lint, saturate it well with the best olive oil, and envelope the breast; next cut a piece of oiled-silk the shape and size of the lint, and cover this over the breast so as to prevent the oil from soiling the linen. In all cases let this be applied not later than the second day after the *accouchement*. As the lint becomes dry, moisten with more oil. Let this be applied until the patient is able to get about. I have tried it in many cases, several of which were primipara, and in no single instance has it failed. Besides, it not only prevents the obstruction of the milk-ducts, by its heating and emollient properties stimulating the capillaries around the base of the gland, but it also causes the milk to flow from the excretory ducts involuntarily (tubuli lactiferi), or, what is better understood in the phraseology of nurses and midwives, by causing the breasts to run. I am of opinion that if the oil is properly applied, and at the proper time, there no longer remains cause to fear the formation of mammary abscess."—*Nashville Journal of Medicine and Surgery.*

PROFESSOR SAYRE'S VERTEBRATED PROBE AND CATHETER.—In the *British Medical Journal* for July 22nd, 1871, Professor Sayre, of New York, describes the vertebrated probe and catheter which he has devised, as follows:

It consists simply of a series of hollow silver disks, made a trifle smaller at one end than at the other, so as to fit into one another, like a pile of cups or tumblers. These are held together by a linked chain running through the series, and jointed nearly opposite each disk insertion. The chain terminates in a square rod which runs through the last disk, and is much larger than any of the other; and on the end of the small rod is cut a thread on which runs a small button screw, which can make the chain tight or loose at pleasure. Of course, when the screw is turned back, the chain being lengthened, the disks fall away from one another, and the probe is as limber as a chain, capable of following any sinuosity into which it may be pushed; and, by a few turns of the screw, the chain being shortened, the disks are drawn firmly together, so as to make a solid probe, which will give the concussion against carious or necrosed bone, the same as any other probe. A small slot is made in the canula containing the screw, for the purpose of putting a small nut which regulates the tension of the chain, and thus prevents the possibility of applying any sufficient force to break it. There are two fenestræ at the distal disk, for the purpose of drawing an oakum seton through deep sinuses and carious joints; this makes it also very useful as a catheter in cases of tortuous urethra from enlarged prostate. It is impossible to make a false passage with it, and, as it is simply a series of ball and socket or universal joints, it will follow any passage, however devious. By simply unscrewing the steel bulb at the end, and inserting a bulb of porcelain, according to the suggestion of Nelaton, you have the most perfect bullet probe that can be desired.

To clean it, it is necessary to unscrew it at the end, and to remove the small screw in the slot in the canula, when it will immediately fall to pieces. After washing, it is easily put together just the same as a string of beads, only remembering to put the small end at the disk on the wire first; and, as each disk increases in length until the end, of course no error can occur in making them fit properly.

The description is illustrated by two wood cuts.—*Med. Times*, October 16th, 1871.

ELIMINATION OF ALCOHOL BY THE KIDNEYS AND BREATH.—At a meeting of the Boston Society of Medical Sciences, Dr. Edes (*Boston Med. and Surg. Journal*), read a paper upon the elimination of alcohol by the kidneys and breath, as determined by the chromic acid test. He found that the elimination by the breath was the more constant, and continued longest at its maximum; but that after large doses, which had a perceptible narcotic effect (40 c. c. of strong alcohol), the urine, for the first two hours, and more especially the first hour, excreted a considerably larger amount. After five or six hours, the amount already eliminated is very small (say 15 c. c. when 40 c. c. had been taken), and the rate has fallen so low that several weeks would be required to complete the removal from the system. With smaller doses (20 c. c. and 5 c. c.), the elimination by the kidneys is hardly perceptible, much less so than that by the breath. Lieben (*Annalen der Chemie und Pharmacie*, 7 Suppl. Band, 1870,) was able to collect from the urine of persons who had taken 22.5 c. c. of alcohol in the form of light wines less than 0 1 c. c. alcohol. It is probable that these results are much modified by the addition of other ingredients, as in wine or beer, by dilution, temperature, habits, or idiosyncrasy.

Editorial.

PRESERVATION OF BODIES FOR DISSECTION AT THE LONDON HOSPITALS.—At St. Thomas' eleven bodies have been preserved in excellent condition, some for more than five months. The method adopted is identical with that used by Prof. Marshall, to whom the authorities at this school are indebted for their details. In this process the arteries may or may not be injected with a weak solution of arsenite of potash, but Mr. Marshall objects to large quantities of arsenic being used, one or two ounces being quite sufficient for the purpose. The bodies are then immersed in a fluid consisting of twenty-four gallons of water, twenty-eight pounds of common salt, one pound and a half of nitrate of potash, and three pints of Burnett's fluid (Chloride of Zinc) to each body. After many trials these proportions have been found to be best adapted for preserving bodies for dissection, for if too much salt or nitrate of potash be used, the skin gets very hard. By this means Mr. Marshall has been able to preserve portions of the body in good condition for demonstration for a period of ten years. The *Lancet* regards this as the best method it has yet seen; it has the further advantage of being the cheapest: and the fluid in which the bodies are immersed need only to be changed once in several years. If this process be adopted it is advisable to inject the paint within a few days of immersion.

At Guy's Hospital, the process consists in injecting into the femoral artery of one or both sides of the body about three pints of glycerine, in which one pound and a half of arsenic has been boiled, and in two or three days forcibly injecting, by means of a syphon, about two gallons of pure glycerine. By this means, the glycerine is made to permeate all the tissues of the body, bullæ containing glycerine not unfrequently forming on the skin. It is necessary to attend to the condition of the fingers and toes, for at first they swell up and become plump, but, if left for a few days, they shrivel and dry up. This shrivelling is entirely obviated by injecting a further quantity of glycerine into the arteries. The bodies are then laid aside and covered with cloths soaked in carbolized glycerine, or are imbedded in saw-dust soaked with carbolic acid. The red paint may be employed at any time, but it is well to wait for a few days after the injection of the glycerine before using it. The bodies are in good condition, the skin has become dark, but the muscles are of a good color and firm, and the nerves sufficiently tough to be traced out. The most serious objection to this process is the cost, which is about thirty shillings for each body.

At St. Bartholomew's, fifteen bodies have been preserved, some from the middle of July last, by the injection into the bloodvessels of Garstin's embalming fluid. What the exact composition of this fluid is we are unable to say, but glycerine, arsenic, and carbolic acid are the chief, if not the sole ingredients. About six pints of the fluid are forcibly injected into the aorta, and in about twenty hours the arteries are filled with red paint. The bodies are then laid on tables in an air tight chamber. This process costs on an average about seven shillings for each body.

DR. MCILVAINE.—This gentleman, formerly of Cincinnati, more recently of New York, sailed from the latter city Saturday, October the 26th, for Paris, where he will remain for some time. Dr. M. has made several trips to Europe. We hope that this visit will be a pleasant one, and that he will return back to his friends renewed in vigor of mind and body, although he has never seemed to falter in either.

EFFECTS OF CHEMICAL CHANGES IN THE BLOOD-GLOBULES ON THE SECRETIONS.—"Evidence," says the *Lancet*, "appears to be accumulating, showing that some, at least, of the changes which take place in the secretions of the body, under the influence of different drugs and remedial agents, are due to, or associated with, changes taking place in the blood-corpuscles. The papers of M. M. BINZ and GELTOWSKY, which have lately appeared in the *Practitioner*, upon the action of quinine on the white corpuscles of the blood, supply important evidence upon this point; for they show that, when added incomparatively, quinine arrests the amœboid movements these corpuscles are capable of performing, and, probably, have a powerful influence in checking their development and multiplication in the lymphatic and vascular glands.

The experiments of M. Ritter point in the same direction. He seeks to show what chemical modifications are produced in the different secretions, and especially in the urine, by the introduction into the system of certain agents known to have an action on the blood-globules. The substances with which he experimented were oxygen, nitrous oxide, carbonic oxide, the salts of antimony and arsenic, phosphorus, and the soda salts of the biliary acids.

Before determining the action of *protoxide of nitrogen* on the urine, M. Ritter investigated its influence on the blood, and shows that this gas is dissolved by the blood in larger quantities than by the serum destitute of globules, but that all the gases—even carbonic acid and hydrogen—displace it easily, while its oxidising power is certainly feeble. On respiring protoxide of nitrogen, or drinking water charged with it, the quantity of carbonic acid expired diminishes; and in regard to the urine, the amount of urea, of uric acid, and of nitrogenized compounds generally, is augmented, but only in proportion to the amount of urine eliminated, which is itself increased. In fact, this gas produces diuresis.

The experiments of Claude Bernard have demonstrated that oxide of carbon deprives the blood-globules of their power of absorbing oxygen. On *a priori* grounds, therefore, the introduction of this gas into the system ought to check oxidation; and, in accordance with this, M. Ritter finds that, after non-poisonous inhalations of carbonic oxide, there is a constant elimination of urea and of the total nitrogen, and that there is especially a diminution in the proportion of urea to the total nitrogen.

The compounds of *antimony*, *arsenic*, and *phosphorus* introduced into the body, occasion a diminution in the quantity of urea and of the total quantity of nitrogen; and, although there is an increase in the amount of uric acid, the urine is alkaline. The compounds of these metals, or metalloids, taken in larger doses, cause disintegration of the globules, and the formation of hæmoglobin crystals. The urine then contains albumen, coloring matter, bile, etc. If less doses be given, an increase of fat and of cholesterine is found in the blood and throughout the system. They are thus shown to be deoxidising agents.

As regards the biliary acids, M. Ritter states that the tansochloate of soda injected directly into the blood, has an action analogous to that of phosphorus, but less energetic.

So far as they go, these experiments are interesting, and open up a wide field of iniquiry, which may perhaps enable us to explain the action of many drugs which are at present shrouded in mystery.

ECLECTICISM DEFINED.—The Iowa State Eclectic Medical Association recently passed the following resolutions:

"*Whereas*, The term Eclecticism has been variously construed by different parties; and, whereas, the clear enunciation of our principles from time to time will enable the medical fraternity, and the people, to better understand our system of practice; therefore,

"*Resolved*, As the sense of this convention, that the total rejection of venesection, arsenic, and antimony, and all their compounds and preparations, as well as lead and copper, and all their compounds and preparations, except as topical applications, are now and ever have been radical and cardinal features of our system of practice.

"*Resolved*, That we doubt the propriety of introducing into the diseased human body, metals which compose no part of it in health, and which are slowly and imperfectly eliminated, and insist on the superiority of organic remedies and those metals found in the normal human body."

We cannot find in these resolutions a "peg on which to hang one's hat." Certainly there are no principles enunciated upon which to base a system of medicine. Very many regular physicians never order venesection or prescribe arsenic, corrosive sublimate, etc. and employ antimony very sparingly if at all. In fact, we know regular physicians, of large practice, who, probably, do not make use of that great bugbear among eclectics, calomel, half a dozen times in a year. "Allopathists" differ more in their views and modes of practice among themselves, than is set forth in these resolutions as the difference between eclecticism and regular medicine.

But the "minerals" which the eclectics *taboo per orem* they make use of topically. But what is the difference in the action of a medicine on the system, whether it is introduced through the stomach or through the skin or any free surface? Arsenic will as certainly kill when administered topically in proper doses, as when given by the mouth.

It is stated that the propriety is doubted of introducing into the diseased human body, metals which compose no part of it in health. But why not as well introduce metals into the body which are not found naturally there, as to introduce other materials that are not found in the healthy body. What more objections can there be in employing antimony internally, for a certain effect, than there is in making use of alcohol to bring about particular results. The latter no more composes a part of the body than the former. And so with many other remedies that eclectics employ. But if a medicine can be made use of properly externally upon the skin, or an ulcerated surface, why not internally upon the mucous membrane of the stomach or intestines? When lead is exhibited by a regular physician it is generally in small doses, in dysentery, etc. for its astringent effect—in other words, as an *internal* topical agent. And why not, if it can be employed externally? Supposing, even, it has to be absorbed and conveyed by the blood in order to reach a part where its action is needed? What harm is done? The blood is all the time, in health, acting as a sort of a sewer in conveying along its channel effete materials and combinations formed in the body, that do not compose a part of the body. This it does, too, without detriment—it is a part of its office.

Eclecticism may succeed very well among the ignorant who are unable to detect a very transparent folly, but it can have no success among intelligent people. The latter are not scared by the cry of "mineral poison," knowing as they do, that the most virulent and the most to be dreaded, are furnished by the vegetable world.

THE PLAGUE IN PERSIA.—The pestilence which has been raging in Persia for two years past is said to be the true Oriental Plague, marked by high fever, cerebral symptoms, buboes on the neck, in the armpits and groins, petechial spots, purpura, carbuncles, etc. The mortality averages fifty per cent., death occurring in from three to eight days. Whole villages have literally been depopulated. In cold weather it disappears.

PRAYER AS A REMEDY IN SICKNESS.—We learn, from our foreign exchanges, that Prof. Tyndall has proposed to set apart certain wards in hospitals for the purpose of testing the power of prayer in curing diseases. The patients of the wards thus set apart are to be subject to no other mode of cure than that of praying on their behalf. We presume that he considers that this method would settle the claims of prayer as a remedy, beyond peradventure. It occurs to us, however, that the assent of a third party to the arrangement would be necessary before the test, if entered upon, could be regarded as establishing anything. The Supreme Being might regard himself only as mocked, and, therefore, would not reply.

On one occasion Satan proposed to Christ that he should cast himself down from a rock; for, that if he were the Christ, angels would be sent to bear him up so that he would not be injured. But Christ's reply was, "Thou shalt not tempt the Lord, thy God." On another occason Christ was bantered to come down from the cross, if he be the Christ, and save himself; but He paid no attention to the proposal. He had a purpose to fulfill, and He could not forego it in order that his power might be tested by a miserable mob who would not have believed on Him if He had done as they proposed.

We believe that it is a cardinal doctrine of the Bible, that *means* are to be employed to accomplish a result, and that it is the *means* that are to be blessed in their end. Paul must plant and Apollos must water before the increase will be given. Although we have seen it intimated that important conclusions may result from the discussions of this suggestion of Prof. Tyndall, which we understand has been made in earnest, yet we do not think, ourself, that any more will result than we have stated.

EIGHT CHILDREN AT A BIRTH.—The Boston Medical and Surgical Journal states that on the 21st of August, Mrs. Timothy Bradlee, of Trumbull County, Ohio, gave birth to eight children—three boys and five girls. They are all living, and are healthy, but quite small. Mr. Bradlee was married six years ago to Eunice Mowery, who weighed 273 pounds on the day of her marriage. She has given birth to two pairs of twins, and now eight more, making twelve children in six years. Mrs. Bradlee was a triplet, her mother and father being twins, and her grand-mother the mother of five pairs of twins.

UNIVERSITY OF HEIDELBERG.—This University has about 1000 students and 150 professors.

In the castle of Heidelberg are the famous wine vessels, the little Jun and the great Jun, the former of which holds 60,000 and the latter 280,000 bottles of wine. It has been filled only three times in the last century.

IMPERIAL GOOD WILLS.—The Emperor of Austria has contributed 20,000 florins toward the International Congress of Medical Hygiene, to be held in 1873.

HARPERS' MAGAZINE.—With the November number is concluded the forty-fifth volume. For the artistic excellence, as well as for the number of its illustrations, it is unsurpassed. Its immense circulation (over 130,000 copies) enables the publishers to expend upon it, for literary and artistic features alone, the sum of $50,000 a-year. Containing from fifty to one hundred per cent. more matter than any other magazine in the world, the greatest variety is secured in its contents, while it is possible, at the same time, to include long and important articles on all subjects commanding the attention of the public mind.

The interesting serial stories, by Miss THACKERAY, CHAS. READE and WILKIE COLLINS, will be continued in the next volume. Published by HARPER & BROS. New York, at $4.00 a-year.

THE

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CHILDREN—THEIR DISEASES AND TREATMENT.

The Semi-Annual Essay by Brewer Mattocks, M. D., St. Paul, Minn.

[From Transactions of the Minnesota State Medical Society.]

Fully one-half of the deaths that occur in the daily practice of the physician are of infants—children under five years of age. Fully two-thirds of the patients we are called upon to visit are children. These facts induced us to write upon "Children—their Diseases and Treatment." Medicine and sentiment possess little in common from a practical standpoint; perhaps it is as it should be; yet at times sympathy adds to the armament of the physician's zeal. This in turn increases his desire for knowledge, "while knowledge is power." And nowhere in the whole range of the practice of medicine is *medical power* more needed than in the treatment of children. If it were possible, we would excite in your hearts a feeling of sympathy for childhood, for infancy, with their sufferings and their trials. We would claim professional sympathy for their helplessness. We are assured this appeal is unnecessary. We all have sympathy for childhood—have we not children of our own? True, we have children of our own, and scarcely an hour passes but most of us here present, in mind, lose a momentary sight of our profession in thought of our little ones at home. Never do we retire to rest without first looking at our babies; at every wakening in the night we instinctively turn to the cradle. This is not a professional sympathy; it is but natural affection. Professional sympathy must be demonstrated by professional aid. That we may be successful in understanding the diseases of children and their treatment, sympathy must largely actuate our every endeavor.

What do we understand by the mere infant? The law defines an infant as one under twenty-one years of age. Shakspeare could see in infancy nothing but a creature "mewling and puking in the nurse's arms." Anatomy recognizes an infant as a miniature man; physiology, a man lacking in some of his functions; while pathology can but see in the infant our equal. A popular impression seems to prevail in the profession that children are peculiarly organized—that they are, in fact, a different species from their adult relatives, and, consequently, they are to be treated from an entirely different standpoint. In one sense there is a shadow of truth in this impression. There are unquestionably marked differences in the physiological development of infants as compared with the adult. For instance, the procreative organs are physiologically wanting in the infant—anatomically they exist. This is, however, but a local difference, so far as our treatment of the subject is concerned. The same difference exists between the adult sexes, yet constitutionally they are one. We have no female bone complaints, or diseases of the stomach, or of the brain as distinct from the male; even hysteria is not impossible in the male. The general practitioner treats the general diseases of the sexes alike. Thus would we have the diseases of childhood treated on general principles. We are not averse to special departments of medicine in the hands of able men, yet we do most emphatically oppose the treatment of children as a special branch of practice. Let those who are peculiarly fitted by taste or experience teach and write on the subject as a specialty if they desire; but when treatment is called for let us all be fitted to respond.

The reason we would not have the treatment of children confined to the specialist is, we hold that the diseases of childhood and infancy are general diseases—liable to all ages—and, moreover, they are to be treated on general principles. We would not be misunderstood as laying down some new and startling theory—impracticable and chimerical. Nor would we be understood as advancing or trying to sustain an arbitrary rule—subject to no exceptions. We would, however, call back your minds from the numerous byways of medicine to the great highway of general principles.

It may, at first sight, seem strange that the so-called diseases of childhood are not peculiar to them alone. All ages are liable to them. Many will even go so far as to deny the proposition *in toto*. Deny it who will, it is an indisputable fact. Show me a disease of infancy that is impossible with the adult, congenital diseases excepted. We grant, however, that many diseases are incidental and common to childhood in such a proportion of cases that the name, Children's Diseases, seems almost warranted, but here we must stop; they are not peculiar to childhood any more than hysterics is necessarily peculiar to women.

But it is asked, admitting your premises are true, admitting that the diseases of one age find their counterpart in the diseases of all ages, what direct bearing does it have upon the treatment or therapeutics of the diseases of childhood? It throws more light upon this treatment. It simplifies it materially. It gives one more confidence in himself.

The pilot oftentimes guides his preciously laden ship by the aid of the compass alone. At times he recognizes no other assistance, when darkness shuts from view the sky, the water, and the land, and yet, if his compass be true, he never errs.

Now it was necessary when this wonderful discovery was first made to verify its accuracy by direct observation; to sail by actual landmarks; to have in view the sky, the land, and the water. So in verifying the stethoscope, the walls of the chest must of necessity be laid open to actual gaze—to be touched and felt of. We therefore conceive that it is far easier to diagnosticate and prescribe for a child unable to articulate, or otherwise give token of its disease, after leaving the bedside of one who, suffering from any form of the self-same disease, is able to explain to you every symptom of his malady; is able to localize the pain, and tell you of his special derangement; is able, in fact, to tell you what is the matter with himself. The practitioner would be foolish, indeed, who prescribed for children as he prescribes for adults; who would give the same doses, or, in fact, the same remedies for maybe the same diseases in all cases alike. So would the practitioner be culpably foolish who recognizes no difference other than age in his patients. *Precisely the same rules hold true in the treatment of children that apply to adults of different ages, conditions, and temperaments,—nothing more.*

Let us, if you please, suppose three patients sick with typhoid fever—a muscular laborer, a delicate female, and a very young child. Do we select from our library shelves a work on diseases of men, another on the diseases of females, and a third work on the treatment of children, that we may understand their disease and treat our patients successfully? Not at all. True, we have vastly different types of disease, and we have vastly different constitutions to deal with. In the adult male, maybe we have a hopeful, sanguine temperament, one who, until the present time, has never known personal sickness, while on the other hand the female of a nervous temperament—debilitated in body and shattered by previous and successive ailments—a mother who has borne children. Again, we have a child unable to articulate understandingly. Here are three cases, each unlike the other, yet the same disease has fastened itself upon them all; the same poison affects them, the same intestinal lesion exists. *Shall we then give them the same treatment, recognizing only the difference in age?* Of course not. We should take into consideration not only their ages, but their temperaments, the present condition; we should go back and find out if possible their antecedents. We should, moreover, expect different complications, not because the one was a *man*, the other a *woman*, and the third a *child*, but because constitutionally they were unlike.

Experience teaches us certain general rules which hold true in all cases. If we are treating a delicately nervous organization, we expect the virulence of the disease to attack the weakest point; hence, with a child, we sedulously look for brain complications, not simply because it is a *child*, but that children are delicately organized. We say experience teaches us this. Perhaps experience has taught us that the child's father during illness is liable to brain complications. We then exercise the same solicitude during the father's illness that we do when the child is sick.

You tell us that typhoid fever seldom atatcks infants, and, moreover, that it is more of a specific than a general disease. True, it is not a fair illustration of our subject. Take then a diseased condition known in infantile life as teething, with its many and varied complications, more serious in the second summer of life. We would not be understood to classify this as a disease, but as a diseased condition. What then are the pathological conditions of this malady? Simply a general nervous, irritable condition of the system. The irritation of teething consists in the pressure upon the mucous membrane by the outgrowing teeth, resulting sometimes in actual inflammation of the membrane, at other times in simply congestion and irritation of the tissues involved. The irritation as a general thing bears a direct ratio to the resistance to be overcome. At other times there seems to be a nervous irritation dependent upon the simple appearance of the teeth. What is the sensation of dentition? This we cannot arrive at definitely. We can, however, conceive of the sensation. We fancy that a child suffers from teething as we suffer from a grumbling toothache, or an inflammation of the gums. It is not exactly a pain; it is an irritation, more troublesome, even, and annoying than a pain. Sometimes by pressure we strive to produce absolute pain for relief. It seems to us that a positive pain could more easily be borne.

It is not strange, nor is it to be wondered at, that this constant irritation in one so young, so physically incapacitated to endure, should light up, or be the occasion for positive disease. Granted that the child is physically unable to successfully cope with this condition of things, to what special disease would the infant naturally yield, or to what special disease would this constant irritation tend? Let us now apply our own rule and reason from the greater to the less. We will imagine an adult female of a weakly constitution suffering from inflammation of the gums; let this suffering occur in the summer months. What condition of things do we first notice consequent upon her local suffering? First, restlessness and sleeplessness; so nervous is she that "she feels as if she could fly." The second day finds her without appetite, and of course the tongue more or less coated. If she compels herself to eat, and, impelled by the irritative fever, drinks copiously, the natural result would be, especially if she were by nature predisposed to diarrhea, a looseness of the bowels. Now to this pain, sleeplessness, loss of appetite (yet meanwhile gorging the stomach), diarrhea, etc., add the depressing effect of warm weather and constant annoyances arising from all sources, you have a patient in a serious condition. Nay, a trifle more irritation, and convulsions and death ensue, even though our patient be an adult.

Here then is a case of teething. Is there not a marked, yes, an absolute parallel between this adult case and the thousands of cases in infant life presented to the profession daily? In the case first considered, we found that the disease induced by the irritation of the gums was diarrhea, occasioned by indigestion;

she loaded her stomach with food and drink when her stomach was in no condition for it; and besides, the intestinal canal was naturally prone to disease. This seems to be the normal condition of children. Their digestive apparatus is so constituted that improper food at once causes trouble. Be it not understood that this is a morbid condition of things; on the contrary, it is a wise provision of nature, so ordered for the child's good.

The food nature intended for the infant was milk from a healthy mother, administered at proper intervals. How rarely is it that we see children fed with good, rich, mother's milk, at proper intervals! On the contrary, at the very time the child is most in need of a well-regulated and careful diet—the beginning of the second summer—less care is, as a general thing, bestowed upon his diet. The child at this time, we say, demands special care because it is now restless from cutting teeth. The infant cries for something to rub its irritated gums against—some resisting body. The nipple is supplied frequently, and of course much milk is taken. From over-exertion and anxiety, the mother's milk deteriorates, and is scanty in quantity. The child cries and is furnished milk in all conditions and from all sources; cakes and candies are thrown into this squalling whirlpool to quiet the noise. And what is the result? What could be a rational result for such irrational treatment? Nature has provided for this contingency. The stomach relieves itself; the bowels in turn throw off their burden. If the mother be ignorant or careless, the feeding and stuffing goes on and no doctor is called until too late. The doctor over the dying bed of the little one gently reproves the ignorant mother for so long delaying help, and receives in answer: "Last year I called a doctor the first day of the diarrhea and he shut it off suddenly—and the poor child died in convulsions the next morning; and what will I do?" Scylla on one hand and Charybdis on the other.

But children are not the only class of persons who are subjected to bowel complaints by reason of a change of climate and diet. Certainly we will not soon forget our army experience! Is the diarrhea of a soldier of necessity the result of his enlistment? Not at all. It is the result of a change of climate and diet. Is the diarrhea of an infant of necessity the result of age? No, it is the result of a change of circumstances and diet.

The only difference between the diarrhea of infancy and adult life is in power of endurance; and even this, we think, lies not so much in the result of mere age as it does in the power the adult has of expression and care of himself.

You say the child suddenly dies with cholera infantum; surely this is a disease of infancy. We answer, it is a disease of infancy only in the wording. True cholera infantum is nearly as rare in infancy as cholera is in the adult. Cholera morbus often similates cholera both in the infant and in the adult.

We speak of bowel diseases in infancy as the result of teething. It will not by any means be understood that all the bowel diseases of infancy are the result, direct or indirect, of teething. Many children die from entero-colitis before dentition commences at all. What causes diarrhea at this age? Improper food and exposure to cold. The same causes as occasion the deaths of three-fourths of the adult cases of diarrhea. Suppose, if you please, that, at this juncture, the milk of illy fed and unhealthy cows was brought into the room, and the members were to surprise their stomachs with this vile fluid—in fact, to gorge themselves with it, and not only during the present hour but during the next twenty-four hours this lacteal feast was to continue; clear milk! just think of it,—unless, perchance, some from choice preferred a little sugar and flour boiled into it—what, think you, gentlemen, would be the condition of your bowels at the expiration of the twenty-four hours? If such a calamity should befall us, how would we diagnose the disease? Would we call it an *old school* diarrhea, or simply a *regular* bowel complaint?

This, in a nutshell, is all there is of the *peculiar* diarrhea of infancy; a natural result of unhealthy food.

The convulsions of infancy—surely they are pathognominic of infancy—they are peculiar to early life. They are in one sense, and in one sense only. It is well known that most children have very delicate nervous organizations; not peculiar organizations, but delicate organizations. The adult female suffers more frequently from convulsions than the male, not by reason of any peculiar organism she possesses, but because her organism is more delicate than that of the male.

In this connection we could enumerate the many contagious diseases of infancy; such as scarlet fever, measles, whooping cough—only, perhaps, to call your attention to the fact that all ages are more or less liable to their attacks. It is, perhaps, unnecessary to further illustrate our position, or to further assert it by demonstration. It now remains for us to discuss the practical bearing of the fact. It is an axiom of surgery that the amputation of a finger is a nicer operation than the amputation of a thigh. It requires more surgical precision, a more delicate manipulation of the saw, the scalpel, the ligature. It certainly requires no more surgical knowledge; nor does it require a *peculiar* surgical knowledge; nor is it a special branch of surgery science. The parallelism between this operation of minor surgery and the treatment of infancy is only in idea—not in absolute fact. It will serve, however, to illustrate our position. The diagnosis and treatment of children is, perhaps, attended by the experienced physician with no more actual difficulty than the diagnosis and treatment of adults. But it requires more tact—if you please, a finer application of our perceptive faculties. It requires vastly more sentiment; that, may we treat the child successfully, we must treat him sympathetically.

We have often, in our observation, noted the success of different physicians in their treatment of children. Some were almost invariably successful, while others, perhaps superior as diagnostitions, wordered at their want of success. The difference between these physicians lay more in tact than talent.

To treat a child understandingly, the physician must, for the time being, assume in his own person the illness of his patient; he must, as it were, place himself in psychological communication with the child. In many instances he cannot make a satisfactory physical examination of the little patient—he cannot question him,—yet he must understand the case. In lieu then of this information, he must interrogate himself; he must reason from cause to effect; he must, in a word, bring to bear upon this case his principles of medicine; he must look at symptoms as they would naturally exist in his own person under the same circumstances.

A very common error we often fall into is the generalization of the diseases of children; for instance, the treatment of teething and its many complications as a special disease.

This brings us to a brief consideration of the treatment of children.

Advanced medical science advises but little medicine in the treatment of children. Advanced ignorance admits no medicine at all. As a general rule the acute endemic diseases of infancy are traceable to some known cause, such as scanty or improper food; else exposure to the changes and vicissitudes of the weather; or, to put our proposition differently, adult diseases occur, children's sicknesses are caused. Taking this view of the case, the indication would be to protect children from the ignorance of their nurses; to demonstrate to them, if possible, the cause of the present attack, that they may in the future be on their guard against similar exposures.

In our *practice* with adults, we often neglect to trace out the cause of their disease. In many instances it is unnecessary. With children, however, the case is very different. Here we must find, oftentimes, our indication for treatment from the cause of the disease. For instance in diarrhea. With the adult the simple fact of diarrhea may be sufficient. Our duty is to check it. With the infant, on the contrary, we must know what caused that diarrhea; whether it be irritating food, an insufficiency of food, or whether it be simply the result of reflex irritation.

The diarrheas of childhood, as a general thing, are the result of improper food. This leads to the inquiry, what is the proper food for an infant? It is certainly strange that we should ever find it necessary to ask this question, what food shall we give a baby? Give it milk, of course; breast milk, if possible; if not, good cow's milk. But are you sure about this? you ask; better men than you have advised differently. Another says, I have fed my children with an artificial preparation, and they thrive on it. Yes, says another, and even better than upon breast milk. To this we answer, we have seen children thrive in squalor, filth and exposure, but where one has lived through this ordeal of uncleanness, a dozen have died by reason of it.

Most of the writers upon the diseases of children, and all the discoverers of artificial food for infants, dwell in large cities where it is impossible to obtain good cow's milk, and rather than use an impure article they are forced to resort to other means.

It does not necessarily follow, however, that because Prof. Meigs has found it necessary, in Philadelphia, to modify the diet of his little patients—when good food cannot be readily obtained—that you and I must do the same, living in a land where good milk is abundant, any more than we should send our sick babies to Fairmount Park, in Philadelphia, because the physicians of Philadelphia do it. Because Baron Liebig found it necessary to compound a food for his little grandson, must we use the same for everybody else's little grandsons? If good breast milk cannot be obtained, I think we should establish a rule that good cow's milk, properly diluted, should be its substitute—that is, if good cow's milk can be obtained, of course insisting that milk from one cow should be used. In some instances, few we think, this food does not seem to agree with our patients; perhaps we do not sufficiently dilute it, or may be the milk is not fresh (we should bear in mind that nature furnishes the infant milk fresh from the breast), or that the utensils are not clean, or some other reason may exist which patient and judicious investigation might remove.

A few pages might be spent with fitness in discussing the clothing of children—or rather the want of it. The physician is culpable who does not attend to the clothing of his little patients, or rather call the mother's attention to the matter from time to time.

In the first part of our essay, we remarked that the diseases of children were not necessarily peculiar. This is true of the treatment of children. They must be treated symptomatically. It seems to us that children suffer more than adults when sick, just as nervous people suffer more when sick than the phlegmatic. Besides, the alimentary canal and the brain seem to be the seat of diseases more often with the little ones, and our personal experience teaches us that where either the one or the other is involved much suffering ensues.

The only special symptoms of disease to which we would call your attention, so far as treatment is concerned, is nervousness or irritability of childhood, as this seems to be the culmination of their suffering. If we treat this, we must give them the preparations of opium, says the conscientious physician; and that with some seems to be outrageous. We have known stern parents and physicians to cause children, sick, nervous, and suffering, to sob themselves to sleep—literally worn out—rather than administer an opiate, because giving a child opium is hurtful. Granted; but which is the more hurtful, a half-night's wakefulness for mother and child, with the scanty and impaired nourishment which the worn out mother has to offer the child in the morning, or the effects of a narcotic?

Of course we would be understood as prescribing soothing draughts only for this irritation which keeps up after the cause has been removed. If the cause of irritation be a tense and inflamed gum, lance it. If constipation, remove it. If from acidity of the stomach, arrest it. If from hunger, feed it.

Having now finished what we have to say on the diseases of children, it remains for us but to call your attention to a fact as painful as it is true. Often we as physicians have done all we can for the little ones, have aided them with all the skill in our power, have talked and written for them with all the eloquence we possess, yet in many instances they fall sick and suffer day after day, and they fade away and die, and we are all powerless to help them.

CONCERNING FOOD.

The recent communications to the British Association concerning extract of meat and preserved food have called forth an indignant reply from Baron Liebig. The manifesto of the veteran chieftain of chemistry has opened up the consideration how the want of economy and waste in matters of food, which is said to exist in this country upon a scale unknown elsewhere, is to be remedied; and how some of the many kinds of food, which we now fail to utilize to the fullest advantage, may be elevated to their proper place in a rational alimentary scale. This is a subject of vast importance, which has forced itself on public attention on many previous occasions, not so much on those occasions from the scarcity and dearness which now characterise some of the chief elements of the national dietary, as from the serious consequences which have, in individuals, been observed to follow a transgression of the physiological laws of nutrition. There is no problem which has been, and we may say still is, the subject of such dispute among physiologists, as the question of food, and the ultimate fate and relation to the vital processes of the organism of the various elements which constitute its materials. Had the selection of food by the people been subject to the same variations as the physiological and chemical theories and speculations of those who have expressed their views on this subject, the results as regards the well-being and health of the community would have been far from satisfactory. On this matter, as Liebig justly remarks, "the instinct and experience of the million are infallible, and a far better guide than the theoretical speculations of men who have remained ignorant of the composition of food, as well as of even the simplest laws of nutrition." It would be a great mistake, however, even though diverse views still prevail regarding the ultimate nature of the processes of assimilation in the organism, to suppose that scientific research has not established many valuable and fundamental laws relating to the process of nutrition, and that the popular instinct never stands in need of examination, assistance, or correction. These laws are perhaps even more valuable in relation to therapeutics, where we have to deal with disease, and where the instincts of self-preservation are abolished, and the life of the individual depends for its support on the hands of the physician. There is, unfortunately, much reason to believe that very great ignorance prevails on this subject, and that many patients succumb, or, as Voit expresses it, are devoted to death, from this cause.

When we ask the popular instinct, What is nutritious? we get an answer in which are enumerated a host of articles of diet We are told that meat is very nutritious; that milk is nutritious; that bread is nutritious; that, for children, nothing is so nutritious as arrowroot; and, for sick persons, beef-tea, jellies, etc., are in the highest degree nutritious. Every word of this is in one sense true, and at the same time in essential respects false. That only can be called nutritious which supplies the organism with all the materials necessary for maintaining it in a uniform composition, and replacing daily waste corresponding to the amount of work done. Leaving out for the present, but not undervaluing, the inorganic constituents, we find that the waste of organic material in the body daily, is represented on the average by about three hundred grains of nitrogen and four thousand grains of carbon. In order that the organism may be maintained in a state of efficiency, this waste must be daily covered by an amount of food which shall at least supply the above-mentioned amount of carbon and nitrogen. For this, we have to resort to certain organic compounds of high potential energy, derived, in all the last instances, from the vegetable kingdom, and which are classed under the heads of albumen, fats, and amyloids, respectively. Under one or the other of these heads come all the substances, animal or vegetable, which form the food-stuffs of man. As to what part in the nutrition of the organism each of these separately plays, is and has been a much disputed question. So long as the daily excretion of nitrogen was looked upon as the measure of the waste of the tissues, the albuminoid elements of the food were regarded as specially destined for building up the tissues. The other elements of the food were regarded merely as heat-producers, and destined to undergo combustion. This great division of food-stuffs into tissue-formers and heat-producers, which we owe to Liebig, and which held its ground for many years, notwithstanding numerous difficulties in its way, has been shown by recent experiments to be erroneous and misleading. The oft-quoted experiments of Fick and Wislicenus, and the still more recent and exact experiments of Dr. Parkes, in regard to the excretion of nitrogen, show in the most conclusive manner that the excretion of nitrogen bears no relation to the amount of tissue-waste, but that, down to a certain point, variations in the amount of nitrogen excreted are dependent entirely on the amount of nitrogenous food ingested. Nitrogenous food, therefore, or albuminoid substances, whether animal or vegetable, are not to be regarded as merely tissue-formers in the sense Liebig attached to them, though they are so in another sense—viz., that without them no tissue can be formed. The whole activity of the organism, heat and mechanical work, are dependent ultimately on the combustion of non-nitrogenous substances, and represented by the amount of carbon excreted. These, however, are capable of being produced not merely from the non-nitrogenous elements of the food alone, but also from the splitting up of the nitrogenous or albuminoid and food stuffs as well. Theoretically, therefore, it would not be correct to say, as we have done, that not one of the materials used as food is of itself nutritious; for we see that the albuminoids of themselves not only contain all that is necessary for supplying the defect of nitrogen, but also by their decomposition give rise to carbonaceous products sufficient to make good the waste in this direction. If a man, however, be confined to a purely flesh-diet, though his three hundred grains of nitrogen might easily be obtained from a comparatively small amount, he must eat at least from four to five pounds in order to obtain his four thousand grains of carbon. This quantity would give him at least four times as much nitrogen as he requires. Hence, supposing that it were possible for a man under ordinary circumstances to consume daily and assimilate such enormous quantities of meat, such a diet would entail on him an enormous amount of useless labor in digesting and getting rid of superfluous material, to say nothing of the extravagant waste which such a diet would imply. The same is true of the other individual elements of food we have mentioned. A man would have to eat daily six pounds of bread, or twenty pounds of potatoes alone, in order to get the necessary supply of nitrogen and carbon. Still worse would it be if he were entirely confined to a fatty or amylaceous diet. Here the nitrogenous element is entirely wanting, and starvation would speedily ensue. In regard to beef-tea and such like substances, these, as Liebig remarks, cannot be regarded as nutritious in any of the above senses, and require an entirely separate consideration. Even when we come to inquire into the nutritive value of milk, in which so many see all the elements of food in the exact proportions in which they are wanted by the organism, the same statements will hold good. What is sufficient for a newly born infant cannot be taken as a guide for the wants of an adult. What an enormous quantity of milk would require to be taken daily, seeing that 80 to 90 per cent. consists merely of water, and that only a very few ounces of solid matter are contained in a whole pound of this fluid! The universal experience of mankind in relying, not on one element of food alone, but in adopting a mixed diet, where all the three food-stuffs are represented, is amply justified by these physiological considerations. But popular instinct has also gone much beyond this, and has succeeded, in extreme cases at least, in so mixing the food-stuffs as to supply in the proper portion just those elements which physiological and chemical research shows to be just those most necessary, under the altered conditions of temperature, to maintain the vigor and activity of the organism. Whether in more temperate climates, and notably in this country, the proper admixture of the various elements is that best suited, not only on physiological grounds, but on grounds of economy, for maintaining the organism in a full state of health and activity, is a question of very great importance, and not by any means easy of solution. This, however, we must leave for future consideration. —*British Medical Journal.*

DIPHTHERIA.

An acute, specific, general disease, which runs a quick and definite course in eight to fourteen days. Its anatomical character is spreading inflammation of the mucous membrane of the pharynx, attended by exudation of lymph, also by swelling of the submaxillary and cervical glands, and of the spleen. The disease is attended with great prostration of the vital powers; by a very early appearance of albumen in the urine, which may continue for a short time only, or may become persistent. In some cases, a remarkable series of nervous phenomena are apt to supervene, characterized by progressive paralysis, and sometimes by fatal syncope. A membranous exudation, similar to that which appears on a mucous surface occasionally, also appears on a wound.

Epidemic diphtheria belongs among the infectious diseases, and even among those that are most typically contagious. The contagion is contained in the false membrane and shreds of tissue detached from the fauces, and in the air breathed out by the patient. Physicians are in great danger of being infected by the morbid products coughed out by the patient when they are painting or cauterizing his throat, or performing a tracheotomy.

Just as in other infectious diseases, in diphtheria, also, certain organs are chiefly subjected to the disturbances of nutrition, and diphtheria is constantly localized in the fauces, less constantly in the upper portion of the air-passages, in the kidneys, spleen, and in some very obscure manner in the nervous system. The mucous membrane covering a tonsil may be the primary seat of the characteristic local exudation, or the arches of the palate, or the posterior surface of the soft palate, the uvula, the nares, or the pharynx may be the primary seat. At first there is redness and swelling; and the normal mucous secretion is so altered in its physical properties that it adheres by its own increased viscidity to the mucous membrane. A white or gray patch now forms on the membrane, which indicates the presence of a layer of lymph on the reddened surface.

The layer of lymph may thus spread from one or from several centres over the reddened surface; and this redness may involve the whole mucous membrane within reach of the eye. The lymph which grows upon this reddened surface may descend into the larynx, the trachea, and the bronchi. Dr. Stokes has recorded a fatal case, in which the tongue, tonsils, pharynx, epiglottis, larynx, trachea, and right bronchus were more or less thickly coated with the deposit, even as far as the fourth or fifth bronchial ramification, while the left bronchus remained quite free from it. Dr. Jenner has known the diphtheritic exudation to extend into the œsophagus and stomach.

If the lymph be torn from the mucous membrane, a raw, bleeding surface is exposed, which in a few hours is again covered by a new layer of lymph. The lymph of diphtheria has a variety of appearances. Sometimes it is granular, with very little consistence or tenacity. Sometimes the part is covered with a pulpy substance of a white or gray color; but this pellicle is constant in some form or other, and is possessed of the power of reproducing itself. It is this specific exudation which establishes the disease as one *sui generis.*

In microscopical characters, it does not appear that this "fur," "pellicle," or "false membrane" of diphtheria can be distinguished from the concrete exudation or blistered surfaces, or that which forms in the angina of scarlatina. The commencement of the formation of the pellicle is in reality an act of coagulation. The mucous membrane exudes, in the first instance, a fluid in which the *fibrim* or *mucin* coagulates; and such coagulated material forms the tube-casts which line the surface of the larynx and trachea, but from the mucous surface of which they come to be separated by a considerable interval; and generally it may be stated that there is the greatest possible variation as to the extent, the consistence, the color, and adherence of the pellicle. Sometimes the particles of lymph are so thin, soft, and separated from each other, that the term membrane can scarcely be correctly applied to it. At other times, it is tough, elastic, and as much as an eighth of an inch in thickness. In the one case, the lymph resembles cream in consistence; in the other it resembles wash-leather; and between the two extremes we meet with all intermediate conditions as regards consistence and tenacity.

Albumen is found in the urine in many cases. Its quantity appears to be sometimes enormous, so that the urine becomes quite solid from heat and nitric acid. Although albuminuria may not be considered an essential element in the disease, yet it is a most important symptom, both as connected with the pathology of the disease and its prognosis.

The *prodromata* which forebode an attack of diphtheria, may be set down as general *malaise*, anorexia, slight fever, dysphagia, and glandular swelling. The symptoms generally supervene very gradually and insidiously; but feelings of depression, prostration, and muscular debility prevail, attended by headache, nausea, diarrhea, and chilliness. There is a sense of stiffness about the neck and throat, and the drowsiness which often attends the accession of an attack of diphtheria may lead the patient to fancy he has caught a slight cold in the throat. A very suspicious, and usually a very early symptom, says Niemeyer, is a hard swelling of the lymphatic glands lying at the bifurcation of the carotid artery.

If the disease has begun violently, if a chill and repeated vomiting have been the first symptoms, the subsequent course is also usually more severe. It is true, the difficulty of swallowing generally remains moderate, and the fever does not become very high, but the patient grows pale, the eyes become dull, the pulse small, and usually frequent, rarely retarded; the patients are very sluggish and apathetic. In many cases the putrefaction of the false membrane causes a penetrating foul breath. If the nasal mucous membrane participates in the disease, a discolored, fetid fluid flows from the reddened and eroded nostrils. The swelling of the cervical glands becomes more marked. In about half the cases, examination of the urine shows the presence of a considerable amount of albumen. Even after a few days, death may occur from general paralysis, while the intellect remains clear. Some patients, whose state had not excited any anxiety, and whose general condition was previously very satisfactory even, die unexpectedly with the symptoms of general collapse, without our being able to find any explanation for the occurrence. Sometimes, also, attacks of deep syncope occur, and pass over, till finally a new attack ends in death. Even the last-mentioned severe cases may terminate favorably. Then the false membranes are detached and no new ones are formed; the remaining ulcers clean up and cicatrize. At the same time the difficulty of swallowing disappears, the glandular enlargement subsides, the depression of the patient disappears, and, if there be no sequelæ, perfect convalescence follows in two or three weeks; but it is usually a long time before the patients recover entirely.

The diphtheritic inflammation of the fauces is sometimes accompanied by croupous inflammation of the larynx and trachea, and then the symptoms are greatly modified. We then have hoarseness, aphonia, excessive dyspnea, and other symptoms of genuine croupous laryngitis. The croupous form has caused the greatest number of deaths, especially in children. Often quite early in the attack the pseudo-membranous inflammation extends to the larynx. A fatal termination may occur by asphyxia in a very few days. This can only be averted by the detachment and expulsion of the membrane without its termination.

Even when the disease apparently ends in recovery, it is often followed by paralysis. Paralysis seldom follows the disease immediately, but comes on in from two to four weeks after its disappearance. Paralysis of the soft palate and pharynx is the most frequent form, and generally precedes the other forms; when the soft palate is paralyzed, the patients have a nasal voice; on attempting to swallow fluids they enter the nose. If the pharynx also be palsied, the power of swallowing is greatly impaired. The extremities also, generally the feet, are occasionally attacked by more or less complete paralysis. The prognosis of diphtheritic paralysis is generally favorable.

No specific treatment having been discovered for this disease, we must be governed in our treatment of it by our idea of its nature. Al are pretty much agreed that it is not a mere local inflammation, but a systemic affection primarily; and that its type is most generally asthenic.

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Three hundred young Russian women have, it is stated, claimed admission as students in medicine and surgery at the newly opened Medical School of St. Petersburg. The number of admissions being, however, fixed at seventy, there will be a great many disappointed.

DISLOCATION OF THE FEMUR.

By W. C. HUGHES, M. D., of St. Leon, Ind.

On the 2nd of September, at 2 P. M., I was called to see Albert Meyers, aged 73 years, a German, suffering with the right femur dislocated; the head of the bone being thrown backwards upon the dorsum ilii; caused by being thrown from a wagon at 8 A. M. Dr. Samuel Davis, of New Trenton, Ind., was in attendance. The Doctor proposed reduction by manipulation, and, the patient having decided not to take chloroform, we proceeded to place him in position by elevating the shoulders and fixing the pelvis.

Dr. Davis then made two efforts at reduction, but failed from want of using sufficient force in abduction. At the Doctor's request, I then made an attempt, and, upon employing more abducting force, the head of the bone entered the socket with an audible snap, heard distinctly by some four or five persons who were present. The operation occupied about two minutes of time.

NOTES OF HOSPITAL PRACTICE.

Surgical Clinic of Prof. S. D. GROSS, of Jefferson Medical College.

[Reported by FRANK WOODBURY.]

A CASE OF SARCOMA OF THE ILLIUM.

William P. Johnston, nineteen years of age, first appeared at the surgical clinic on the 19th of last June, during the service of Dr. S. W. Gross. He was kindly sent to the clinic by Dr. Roland, of Media, who had been attending him, and regarded it as an interesting case. At that time he seemed as if he were laboring under a wasting disease, or as if his nutrition was greatly impaired. His face, which was pallid and anæmic, wore a despondent look, the result apparently of physical or mental suffering. He was thin and emaciated, and said that he was losing flesh. The affected limb was partially drawn up, the knee and thigh being semi-fixed; the knee was close to its fellow, and the foot was directed outward as in an ilio-pubic dislocation of the femur. It was also thinner than its sound neighbor, from a partial atrophy of its muscles.

He gave the following history: About one year before his appearance at the clinic, while working in a lumber yard, a heavy plank fell upon him, striking him forcibly on the right hip at a time when he was bending forward to lift something from the ground. The injury was followed by loss of consciousness, and he was confined to his house for a week from its effects. Two weeks subsequent to this accident, an abscess formed at the spot, and discharged a large amount of unhealthy, dark-colored pus, of an offensive odor. He had apparently entirely recovered, when he caught a severe cold from exposure to a storm. This brought back the pain, which he considered at the time to be of a rheumatic nature. This was two months after the accident. This pain continued, being almost constant, but not severe, for about eight months, at the end of which time he began to find an increased difficulty in walking, and, on examining, first noticed a hard swelling of large size at the situation of the present tumor, which he thinks has increased but little since that time, but which has so disabled the limb as to oblige him to use a cane in walking.

The tumor projected posteriorly, apparently from the sacro-iliac symphysis to the anterior superior spinous process of the iliac bone, and from its crest almost to the tuberosity of the ischium. There was a corresponding tumor in front protruding the anterior wall of the abdomen as far over as the umbilicus. The tumor was of large size, firm, immovable, elastic, with an apparent sense of fluctuation at one point. The skin was natural in appearance, was not adherent to the mass, and their were no enlarged subcutaneous veins. There was preternatural heat in the part, which was evidently several degrees warmer than the opposite side of the body. The tumor was smooth, not tuberculated or nodulated, and gave but little pain, which was more of a dull and aching than of a sharp or darting character. The following measurements were taken over the tumor, and contrasted with those on the opposite side:

	Over the tumor.	On opp. side.
Diagonally, from the posterior superior spine of the ilium to the great trochanter.	11 in.	7 in.
Transversely, from the spinal process of the sacral vertebræ to anterior superior spinous process ...	11½ "	11 "
Vertically, over the most prominent portion of the tumor from about the centre of the crest to the tuberosity of the ischium...	13½ "	11 "
Around the body, from the sacral vertebræ to the median line in front.........	18½ "	16 "

His appetite was good; the digestive functions were well-performed; he had no headache and slept well.

September 7th. He appeared again at the clinic. The tumor had evidently increased in size, but did not exhibit any tendency to ulceration. His general health remained good, although he was still losing flesh.

Prof. Gross examined the patient. The tumor, which was quite solid throughout, extended nearly to the ischial tuberosity, and was the seat of a constant aching pain. A number of enlarged glands were found in the groin above Poupart's ligament.

The lecturer said: "The original injury may or may not have influenced the production of the disease. The affection might have presented itself in the part if the accident had never occured. Patients often ascribe a supposed origin to diseases with which they could not have the slightest connection. Too much reliance must not be placed on the statements of patients, as they may mislead, even when not made with that intention; although the contrary is frequently the case, especially in diseases of a venereal origin.

"What is the nature of this tumor? The skin above it is natural and not adherent; the subcutaneous veins are slightly enlarged, but not so much so as they generally are in the variety of carcinoma known as encephaloid, which obtains its name from the resemblance it bears, on section, to the human brain, and is for the most part soft and elastic in consistence. This tumor is dense and firm; it is, therefore, not encephaloid. It is not scirrhus, because I have never seen scirrhus attain such a bulk; it is generally small, and occurs most frequently in the mammary gland and uterus, and in the liver, anus, and rectum; rarely, if ever, occurring in the bones, tendons, ligaments, muscles, brain, lungs and spleen, or in the vessels and nerves. This is not a colloid tumor; for, although colloid tumors attain a large size in the peritoneum and ovary, yet they rarely occur on the surface of the body; and, even in such a case, there could exist no danger of confounding this dense, hard tumor with colloid, which is, as its name implies, of a jelly-like consistence. This is not a fatty, hydatid or fibroid tumor, nor is it epithelioma. It is none of these; it is sarcoma. But this name conveys a wrong idea of the pathology of the disease. It means a fleshy tumor, whereas it is not more fleshy than a number of other tumors to which the name might with equal propriety be applied. It is an old name which was revived by Virchow, and by him used to designate a class of tumors which are not essentially malignant, and which, until within a few years, were confounded with encephaloid disease. Sarcoma exists in a variety of forms, which have been divided according to their microscopical characters into round-, spindle-, and giant-celled, the form most commonly met with being the round-celled variety, which exhibits itself in different portions of the body. In this case I notice an enlargement of the inguinal glands, which is unusual, and which I consider a grave symptom. The glands generally become enlarged in the neighborhood of an encephaloid tumor in a state of ulceration; and accompanying scirrhus there is an enlargement and induration of the surrounding glands, which is supposed to be due to direct absorption of the cancer-elements. This, however, is rare in sarcoma. From the appearance of this tumor I should consider it as belonging to the round celled variety. It is quite as unrelenting as cancer, and the only efficient remedy is prompt and early removal. If in the present case this disease was in its incipiency or earlier stage, I should not doubt the propriety of such an operatinn, nor hesitate to perform it. But now this is out of the question; the condition of the patient, the ganglionic involvement, the extent of the operation,—which would involve laiyng open the abdominal cavity,—all forbid such interference; it would only hasten the fatal issue. Even were the operation successful, the disease would return in a few weeks either in the cicatrix or in some vital organ. We can do nothing for the patient except to try to sustain his general health; if he suffers pain, we will give him an anodyne. Pain is a direct evil, and oftentimes claims treatment, especially in cases where it interferes with health by preventing sleep or producing mental distress. You must not let your patients suffer.

"The prognosis in this case is very clear and unmistakable. We will give him no medicine, as it would be without effect except to disorder his stomach. He may take some gentle exercise every day in the open air, and get as much food and sleep as possible.

"I had a case in my private practice somewhat similar to this, during the latter part of last term. The patient was a young married man, twenty-eight years of age, who had a tumor in the calf of the leg, which I pronounced sarcomatous and carefully removed. This shortly returned, and was followed by a second operation, but when it recurred again, which it did soon after, I advised amputation. This his friends would not consent to, and, being overruled, I again cut it out, but was not successful in obtaining all the morbid structure, as it extended into the poplitcal space. This was followed by another recurrence of the disease, and this time I performed Teale's amputation at the junction of the middle and lower third of the thigh. The operation was followed by extensive suppuration, but the stump finally healed. The man died a few months later, with symptoms of solidification of the left lung. I was unable to obtain a post-mortem, as the patient was a Hebrew, whose religion forbade such an examination; but I am quite certain that he died of sarcomatous disease of the lung. Notice the history. The patient had sarcoma of the leg, which repeatedly returned after apparent extirpation, showing a special tendency to the disease existing in his system. After its usual seat of manifestation was removed, it suddenly invaded one of the internal organs, and the man died, not from pneumonia, but from a sarcomatous deposit in the lung. There was not in the last instance, strictly speaking, a return of the disease, but there was a fresh development of it in another part of the body.

"If you have the opportunity of extirpating a tumor of this kind in its earlier stage, always do so, but do not be too sanguine. There is always danger of return in some internal organ, and the chances are that the patient will ultimately perish from the disease."

MAMMARY ABSCESS.

A young married woman, 27 years old, applies for treatment for a painful swelling in the right mammary gland. She has been confind eight weeks before. The breast is swollen, tender, and painful to the touch; and the skin over the affected part is tense, hot, and discolored, and has a peculiar glazed appearance. The tumor is not diffused, but is limited to one portion of the breast, and on touching it there is a sense of fluctuation as if its contents were fluid. This is readily distinguished from the false fluctuation in anasarca and œdema.

This affection is a phlegmonous abscess of the mammary gland, commonly called, by women, a gathered breast. I have divided abscesses into two kinds: the phlegmonous, which is acute in character, is accompanied by a high degree of inflammatory action, runs its course quickly, is exquisitely sensitive, and is accompanied by throbbing pain; and the scrofulous or strumous, known as the cold abscess from the absence of inflammatory symptoms, or chronic, on account of the slowness of its development. The latter is only met with in persons of a peculiar diathesis, who are particularly liable to phthisis and other tubercular diseases; the former occurring much more frequently, and being seen in all ages and conditions of life.

This trouble was produced by inflammation of the gland, or mastitis, which frequently occurs during lactation, and may be due to a number of causes, the most prominent one being suppression of the cutaneous perspiration. It generally makes its appearance wlthin the first fortnight following parturition, and exhibits itself in the shape of small lumps, which are rather hard and deep-seated, quite tender to the touch, and about the size and shape of an almond. These are inflamed lobules, and from them the inflammation may quickly extend to surrounding lobules, and may gradually involve the entire gland, which becomes swollen and heavy, and the skin over it is hot, discolored, and glossy, perhaps a little œdematous. The secretion of milk is interfered with, as the galactophorous ducts are choked with the accumulated secretion. This condition, if not timely arrested, passes quickly into suppuration, forming a mammary abscess. The inflammation in its early stage may be checked by mild stimulating applications, such as linimentum ammoniæ, or warm oil with laudanum. These are to be frequently used; the nurse, in applying them, standing behind the patient, and gently rubbing the lotion on the affected gland with her hand, the direction of the friction being toward the nipple. This generally softens the induration in a short time, and promotes the flow of the milk. Combined with this, the patient may be treated on general antiphlogistic principles; occurring in a plethoric person, it may be necessary to take a few ounces of blood, either from the arm, or by leeches from the affected part. The diet must be of the lightest kind; purgatives are sometimes called for; and the breast must be supported by a bandage or sling, having the milk drawn from it several times daily.

This inflammation may pass into suppuration, forming the condition present in the case before us. The symptoms indicative of this event are an increase of deep-seated pain of a throbbing nature, and discoloration of the surface; but the most decisive diagnostic symptom is the sense of fluctuation to the touch. This condition may be accompanied by flushes of heat over the body, followed by profuse perspiration. The indications for treatment are, to open the abscess by a free and early incision, to evacuate the pus and prevent it from burrowing among the fat, and dissecting the lobules of the gland from each other; by this means we save structure, time, and suffering. The pus, in such a case, is generally of a cream-like consistency, of a light yellow color, with perhaps a few flakes of lymph, but always contains milk, which is evident under the microscope. The amount of pus discharged varies from an ounce up to a quart, being generally from four to six ounces.

The mammary gland is sometimes enlarged and painful from over-distention with milk, but a due attention to the symptoms will effectually provent any one from confounding such a condition with the one just described.

After opening the abscess with a curved bistoury, a slippery-elm poultice was directed to be applied and renewed three times daily; the inflamed part to be painted with equal parts of tinct. iodine and alcohol; some laxative medicine given, and the patient enjoined to keep at rest for a few days.

DOUBLE HYDROCELE WITH CONGENITAL HERNIA.

Henry Porter, aged six weeks, exhibited a distended scrotum, the enlargement extending into the lower part of the abdomen. This tumor was first noticed by the mother when the child was two weeks old.

This affection may be hydrocele or hernia, or both; but whatever it is, it was, without question, congenital in its origin. A hydrocele of the vaginal tunic of the testicle may exist by itself, and, in rare cases, may co-exist with hernia. On examining the scrotum, we find that it is much larger than it should be, and the testicle is at its lowest portion. The tumor is soft, translucent, and fluctuates, but at one part has a peculiar gaseous feel.

Hydrocele is an accumulation of a watery albuminous fluid, generally in the vaginal tunic of the testicle, but it may be encysted in the spermatic cord. It receives the name of single or double, according as it is limited to one side or exists on both. It forms a soft fluctuating tumor, which by transmitted light is seen to be translucient; it frequently occurs in children, but is also a disease of adult life. It may be simulated by a scrotal inguinal hernia, which, however, generally is a denser tumor, and is not translucent; it receives a distinct impulse when the patient coughs or cries, and, if reducible, returns into the belly with a gurgling noise on applying taxis. An exploring-needle, however, would settle a doubtful diagnosis, as its withdrawal would be followed by a drop of clear fluid if the tumor were hydrocele.

Congenital scrotal hernia will be readily understood by remembering the course which is followed by the testicle in its descent. This organ is originally developed, during intra-uterine life, in the upper and back part of the abdominal cavity, immediately under the kidney and behind the peritoneum, to which it is firmly attached. By the contraction of the fibres of the "gubernaculum testis," the testicle is gradually brought to the opening of the internal abdominal ring, through it, and along the inguinal canal, until, emerging from the external abdominal ring at about the seventh month of fœtal existence, it assumes the position that it occupies in after-life. In its descent, it draws with it the peritoneum, forming a funnel-shaped process extending through the inguinal canal to the testicle. Generally the sides of this peritoneal canal grow together shortly afterwards, and degenerate into a fibrous cord, thus obliterating the cavity; but nature sometimes fails to do this, and the communication remains open, and when the child cries the bowel is forced down, forming oblique inguinal hernia. This is called congenital hernia. Now, if hydrocele also exist, the fluid, by pressing on the tumor, might readily be made to recede into the peritoneal cavity through the abnormal opening. In the case before us, both conditions are evidently present. The watery, fluctuating part of the tumor is the fluid contents of a hydrocele; and the denser, gaseous portion is undoubtedly a loop of intestine.

A less careful diagnosis here might have destroyed the child's life; either from an incautious puncture of the bowel, or, by endeavoring to cure the hydrocele by adhesive inflammation, the morbid action might readily extend by direct continuity of structure and produce fatal peritonitis.

To promote absorption of this fluid, a weak solution of hydrochlorate of ammonia in water (grs. x. to f℥j) will be used,—a cloth wet with this shall be kept constantly to the part. Treatment for the hernia must be deferred until the child is a little older. He is too young now to wear a truss, as his skin is too delicate and tender, and the pressure would irritate it. It would also be impossible to keep such an apparatus clean. For these reasons a truss should never be ordered for a child so young, as its use may be dispensed with for a few months, with advantage to the patient and comfort to his attendants.—*Medical Times.*

CUTANEOUS ABSORPTION.

In a recent note to the Paris Academy, M. Bernard writes as follows: I desire to submit to the Academy an account of experiments made in the Vincennes Asylum as to cutaneous absorption in baths of medical vapor. In such an institution, among patients with various chronic affections, I am favorably situated for experimenting on this question on a large scale.

Reveil's memoir on the subject gives the facts which are known up to the present. "Absorption in the bath," he says, "only takes place in rare and exceptional circumstances; it is facilitated by washing the skin, continued rubbing, and by certain irritant and solvent substances."

The bath apparatus consists of a furnace, a boiler, a chamber in which the steam coming from the boiler was charged with the substance to be applied, and a wooden cage, in which the patient was seated while enveloped in the vapor.

I used iodide of potassium in my experiments—(1) because it is not volatile; (2) because its presence in urine is easily determined by nitric acid and chloroform; (3) because, in seizing the iodine set at liberty by the nitre acid, the chloroform takes a rose color varing in a marked way with quantity, and thus, by comparing with a graduated scale one may determine pretty accurately and without quantitative analysis, the quantity of iodide of potassium in the urine.

The skin of the subjects experimented on was intact, without wound or scratch. The urine was examined before the bath was taken, and the absence of iodine ascertained. By a respiratory tube, the patient breathed the external air through his mouth, the nostrils being pinched. A thick sheet of caoutchouc was bound by a T-bandage over the anus; the penis was sheathed in the same material; while the hands and feet were wrapped in cotton and gummed taffeta.

The subject was then placed in a cage, and subjected for thirty minutes to vapor from the mixing chamber, into which there had been put twenty grammes of iodide of potassium. The temperature in the cage was gradually raised to 45 deg.; the skin of the subject became wet. He was then wrapped in a woolen covering and put in bed, when profuse prespiration took place. The urine analyzed two hours after the bath gave a rose color; some taken three hours after gave a much more lively color; thus affording clear proof of the absorption of iodide of potassium through the skin, the only way it could have entered the system. Besides, if it had entered by pulmonary passages, it would have been eliminated immediately after the bath. These first experiments, then, prove the fact of cutaneous absorption.

In a second series I sought to determine to what temperature the air, mixed with medicamental vapor, must be raised, in order to the absorption taking place.

A very sensitive thermometer was applied to the breast of the subject, and the temperature of the bath varied in the series of experiments from 30 deg. to 38 deg., the time being, as before, thirty minutes. I only found the absorption take place when the temperature was 38 degrees (or one degree above the temperature of the body). Indeed, the sebaceous matter in the cells of the epidermis only commences to dissolve at thirty-eight degrees when the skin is really wet; it is then that imbibition takes place. and consequently absorption. The iodide of potassium, conveyed mechanically by the vapor, penetrates the epidermis, whence it passes into the capillary blood system and the other organs.

Thus we understand how absorption does not generally take place in a water bath. Owing to the density of the water, and its great specific heat, the temperature of such baths is not usually raised beyond 30 degrees to 33 degrees. Dr. Homolle remained in a bath at 34 or 35 degrees: would he have been able to bear 38 or 39 degrees? Besides, the liquid layer touching the skin is not constantly renewed, as in the vapor bath.

I succeeded, however, in obtaining the cutaneous absorption at a temperature under that of the body, in the following way:

The subject had first a simple vapor bath, to destroy the sebaceous matter; his skin was washed and carefully dried, and he was replaced immediately in the cage, where he was exposed to the vapor of iodide of potassium for thirty minutes, the temperature of the bath varying, in several experiments of this kind, from 34 to 36 degrees. Two hours after a bath at 34 degrees the coloration of the urine was slightly rose; after a bath 36 it was much more distinct.

M. Colin has described an experiment in which he allowed water charged with cyanide of potassium to fall for five hours' time on a horse's back. This caused the death of the animal; the sebaceous matter having been destroyed by percussion, and cutaneous absorption taking place.

In the sand-baths at Cette and Arcachon, which are found so efficacious for scrofulous affections, tumors, etc., what takes place? The temperature being considerably above that of the body (over 40 degrees), the skin is wet, the sebaceous matter dissolves in the perspiration, and there follows absorption of the salts contained in the sand.

I have not been able to find free iodine in the urine; the use of nitric acid has always been necessary. Besides, iodine once introduced into the system soon forms various compounds.

In summing up his results, M. Bernard further mentions that the elimination of the salt, commencing two hours after the bath, increases in quantity till a meal is taken, after which it diminishes (probably because of the water received into the system), and then again increases. It ceases completely twenty-four hours after the bath, whatever the amount of the salt, the temperature, or the duration of the bath.—*Chemical News.*

STRYCHNIA HYPODERMICALLY.

In the the *Medical Archives*, Dr. Thomas Kannard says of the hypodermic injection of strychina:

"Noticing some time ago in the January number of the *American Journal of Medical Sciences*, an article from Dr. J. J. Chisholm, of Baltimore, in regard to the surprising effects of strychina hypodermically, in the treatment of amauroris, as first recommended and employed by Prof. Nagel, of the University of Tubingen, and in consideration of the eminent position and reputation of both professors, I determined to try the stimulating effects of that drug (as recommended) upon the optic nerve at my earliest opportunity, and accordingly, on the 5th of February, I commenced the hypodermic injection of strychnia in a patient whom I believed was suffering from white atrophy of the optic nerve, and who had had no vision from one eye and very imperfect from the other for several years, and for which trouble every means which promised good had been tried in vain. I was naturally timid in my first experiment with so powerful a remedy, and began with the 1-60th part of a grain which having no perceptible effect, I then increased day by day, to the 1-40th, 1-30th, 1-24th, 1-15th, 1-12th, without perceiving any benefit or effect whatever. I then on the seventh day of treatment, used the 1-12th, morning and evening, some five days, when I combined with it the elixir quiniæ et ferriet strychniæ ʒij, or the 1-30th of a grain of strychnia three times a bay, and still perceiving no effects from this heroic treatment, except slight twitching on one occassion, I began to consider my patient strychnia-proof, and ventured to increase the hypodermic dose, on the fourteenth day, to the 1-8th, then to the 1-6th, 1-5th, and even 1-4th, without any perceptible effect, more than I expected from the tonic influence or the elixir taken internally. This patient was a delicate and inform man, about 50 years of age. While he was under treatment, I used hypordermically the same remedy, only increasing the amount injected more rapidly, with a young woman who, within a short space of time, had lost completely the senses of taste, smell and vision, but was apparently otherwise in the enjoyment of perfect health. I commenced with her on the 13th day of February with the 1-24th gr., then day by day I increased to the 1-15th, 1-10th, 1-8th, until the sixth day I injected the 1-6th, and repeated that dose five day without any perceptible effect whatever, except upon the third or fourth day, when she had some twitching, and her vision was improved slightly, or rather she thought that she could distinguish light from darkness, and perceive large bodies passing her, which she could not do before. She was also taking the elixir internally, 1-30th of a grain of strychniæ three times a day. This improvement was only transient, however.

"On the 17th of March I was called to see an Irish woman who for seven or eight months had been suffering with partial paralysis of the arm and leg of the right side, accompanied by a most intolerable feeling of coldness, as if ice was packed on that side. I commenced with the 1-24th of a grain of strychina hypodermically, and the elixir of quinine, iron and strychina ʒ ij internally, three times a day, and gradually increased it to the 1-12th 1-8th and the 1-6th, which dose I continued until the 27th without any toxical effect whatever. Her limb soon got naturally warm, but most likely from the effects of the strong veratria ointment which I rubbed it with, though perhaps the strychina produced it, as Echeverria recommends it very highly in such cases, and reports several thus treated satisfactorily.

"On the 1st, 2nd, 4th, and 5th of April I injected the 1-12th, 1-8th, 1-6th, and 1-5th of a grain of strychina into the arm of an old lady, 72 years of age, for partial paralysis, with some benefit, but no poisonous effect whatever; there was not the slightest twitching produced in her at any time, and I had employed it with her on one former occasion with the same result.

"Such has been my short experience with the hypodermic injection with this powerful remedy, and it differed so materially from the published reports of the others, that I thought it worth while to make note of it; for although authorities have varied in regard to the dose of styrchnia to be administered hypodermically, and Courty and Eulenburg have injected as much as 1-8th of a gr., the majority have recommended from 1-60th to the 1-24th of a grain, and cautioned us against the dangers of even the latter amount; and as for as I know, none before me have doubted that it would produce its usual physiological and toxic effects when injected beneath the skin."—*Michigan University Medical Journal.*

THE ACTION OF LARGE DOSES OF QUININE.

The *Lyon Medicale* for February has an article by Professor Binz, of Bonn, on the accidents which may result from the use of large doses of quinine. While advocating the use of single large doses, even as high as 15 to 20 grains, rather than repeated small doses, he calls attention to the unfavorable effects which may result in exceptional cases.

Deranged Action of the Nervous System and of the Heart.—These diminishes (probably because of the water received into the system), and then again increases. It ceases completely twenty-four hours after the bath, whatever the amount of the salt, the temperature, or the duration of the bath.—*Chemical News.*

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Deranged Action of the Nervous System and of the Heart.—These cases are of tolerably frequent occurrence. In one instance, in which three drachms were taken by mistake, there followed, in the course of an hour, pain in the head and stomach, vertigo, prostration, loss of consciousness, lividity of the lips, and coldness of the extremities. The pulse was slow and regular, and almost imperceptible, the respiration languid, and pupils widely dilated. Frictions and hot clothes, with stimulants internally, brought about reaction, and by the fifth day the patient was able to sit up. Sight and hearing were greatly impaired for a considerable time.

In animals poisoned with quinine, the heart is found dilated and insensible even to the stimulus of electricity. Thus it appears that while, in small doses, the drug acts as a cardiac stimulant, in large doses it tends directly to repress the action of the heart. This suggests caution in the use of large doses when the heart is enfeebled, or when additional labor is thrown upon it.

Impairment of Hearing.—The deafness produced by quinine generally subsides with the other symptoms of cinchonism, but in rare instances it persists for a considerable time, or may even be permanent. A patient having a congestive chill, took ninety grains during the succeeding intermission. Another chill following, the same doses were repeated. No other paroxysm occurred, but the patient was left perfectly deaf, and has remained so up to the time of writing, a period of ten years. In another case, in which the quantity given is not stated, the deafness continued three weeks.

Loss of Power of Speech is occasionally observed, but it is usually of short duration.

Disturbance of Vision—Four cases are mentioned, in which complete amaurosis resulted from the daily use, for several day, of from 45 to 75 grains. In two of these cases the amaurosis continued only one day. In one case it persisted for a month.

Græfe gave 45 grains daily for a week, causing feebledess of vision in one eye, which continued for four months, when the patient was lost sight of.

In another case, in which about thirteen grains were given daily for a long period, there followed complete loss of sight in one eye, which was relieved after six weeks by local depletion.

In a few cases, *hemorrhage from mucous surfaces*, and an *erythematous* or *pruriginous eruption on the skin*, have been observed to follow the use of large doses.

Irritation of the Digestive Organs, so often observed, will, he thinks, be almost always avoided by giving the quinine in solution.

Albuminuria is occasionally produced when the kidneys are required to eliminate a large quantity of quinine. It ceases, however, when the medicine is suspended.

Vesical Catarrh has also been observed to follow under similar conditions.—*Medical Record*,

THE YOUNG DOCTOR.

We clip the following charactersitic bit of description from Oliver Wendell Holmes' story, "The Poet at the breakfast Table," in the *Atlantic Monthly* for March, 1872:

The young doctor has a very small office and a very large sign, with a transparency at night big enough for an oystershop. These young doctors are particularly strong, as I understand, on what they call "diagnosis"—an excellent branch of the healing art, full of satisfactton to the curious practitioner, who likes to give the right Latin name to one's complaint; not quite so satisfactory to the patient, as it is not so very much pleasanter to be bitten by a dog with a collar round his neck, telling you that he is called *Snap* or *Teaser*, than by a dog without a collar. Sometimes, in fact, one would a little rather not know the exact name of his complaint, as if he does he is pretty sure to look it out in a medical dictionary, and then if he reads—*This terrible disease is attended with vast suffering, and is inevitably mortal*, or any such statement, it is apt to affect him unpleasantly.

I confess to a little shakiness when I knocked at Dr. Benjamin's office door. "Come in !" exclaimed Dr. B. F., in tones that sounded ominous and sepulchral. And I went in.

I don't believe the chambers of the Inquisition ever presented a more alarming array of implements for extracting a confession, than our young doctor's office did of instruments, to make nature tell what was the matter with a poor body.

There were Ophthalmoscopes and Rhinoscopes, and Otoscopes and Laryngoscopes and Stethoscopes; and Thermometers and Spirometers and Dynamometers and Sphygmometers and Pleximeters; and Probes and Probangs, and all sorts of frightful inquisitive exploring contrivances; and scales to weigh you in, and tests, and balances and pumps, and electro-magnets and magneto-electric machines; in short, apparatus for doing everything but turn you inside out.

Dr. Benjamin sat me down before his one window and began looking at me with such a superhuman air of sagacity, that I felt like one of those open-breasted clocks which make no secret of their inside arrangements, and almost thought he could see through me, as one sees through a shrimp or jellyfish.

First, he looked at the place inculpated, which had a sort of greenish-brown color, with his naked eyes, with much corrugation of forehead and fearful concentration of attention; then through a pocket glass which he carried. Then he drew back a space, for a perspective view. Then he made me put out my tongue, and laid a slip of blue paper on it, which turned red and scared me a little. Next he took my wrist; but instead of counting my pulse in the old-fashioned way, he fastened

County Medical Society, and attended its meetings whenever he could conveniently do so. He was friendly with all its members; courteous in his conduct towards them all in his remarks during the discussion of medical or other topics which came before the Society; and every one could testify to the soundness of his opinions in regard to medical theory and practice. Dr. Rector was a member of the Methodist Episcopal Church, and was sustained and cheered in life and in death by the consolations of the Christian Religion.

After the conclusion of Dr. McLaughlin's excellent and appropriate remarks, in thus formally calling the attention of the Society to the death of a fellow-member, the chair, in accordance with a motion to that effect, appointed a committee of three to report, at the next meeting, resolutions expressive of the sense of the Society relative to Dr. Rector's death. Drs. Bryant, Kay, and McLaughlin were the committee appointed.

Dr. Bryant laid before the Society a specimen of uterine supporter of his own invention. In devising this instrument, the Doctor had laid aside the consideration of all previous inventions and commenced the rigid study of the anatomy, physiology and pathology of the parts implicated. The instrument exhibited was truly an ingenious and neat affair, and will evidently accomplish all that the Doctor claims for it. It differs radically in its construction from anything of the kind that was ever before presented to the medical profession, and will doubtless elicit much attention in the future.

The subject of rheumatism was then taken up. Dr. Banwell read an essay upon the subject under consideration. After noticing the different kinds of rheumatic affections, the essayist stated that probably one-fourth of the people between the ages of puberty and forty years suffer in some degree from rheumatism. In many instances it seems to be hereditary. The predisposition is stronger in the athletic than in the anæmic. The characteristic symptoms are almost identical with common inflammation, viz., heat, pain, redness, and swelling of the parts. This inflammation is not confined to any particular tissue, although it principally attacks the fibrous. One of the most notable complications of rheumatism is cardiac disease; pleurisy and pneumonia are rarer complications. Dr. Banwell then proceeded to discuss the treatment of this strange and painful malady.

Dr. Reeves commented favorably upon the manner in which Dr. Banwell had treated of rheumatism in his essay. Rheumatism was a disease in which a great variety of treatment had been adopted. The gist of the controversy upon this point seemed to consist of the question as to whether the acid or alkaline treatment should be employed. In many cases bleeding seemed to be indispensable. It afforded immediate and permanent relief. This plan should be pursued where there is a plethoric condition of the system.

The regular profession should not be made to swerve from this philosophical course, even by all the protests that could be made by quacks and ignorant old women. In the treatment of arthritic rheumatism, the silicate of potash bandage is coming into favorable notice. The parts diseased should be at perfect rest. In order to secure rest, the patient should, if necessary, be splinted down and not allowed to move about. The chief benefit of opium consisted in the profound rest which it insured. The perfect quiet thus produced permitted the diseased limbs to recover. In many cases of rheumatism, we had to contend with gouty diathesis. In chronic rheumatism of the arthritic variety, with accompanying gouty diathesis, the wine of Colchicum acted as a specific remedy. There was nothing like it. There was far less heart complications, in these rheumatic cases, than was generally supposed. Sub-acute rheumatism was almost always connected with deranged liver from malaria. He had found blue mass and quinine quite beneficial in sub-acute rheumatism.

Dr. McLaughlin spoke of the essential character of rheumatism. We had acute rheumatism, chronic rheumatism, arthritic rheumatism, and other varieties. These varieties of inflammatory and febrile disease should be treated as strictly upon the antiphlogistic plan, as in any other inflammation or fever. He had always had the same success in treating rheumatism as in any other febrile disease. Sedatives were highly important. Water was no more certain to quench fire than sedatives to quiet the rheumatic condition. Blisters were also good—in some cases almost infallible. In the chronic form of disease, and in lumbago, use cimcifuga and phytolacca. When the system is plus the acid condition, use alkalies; when the system is plus the alkalies, use the acid. This has been his general plan in regard to the Acid and Alkaline treatments.

Dr. Senseman thought that rheumatism was essentially an inflammation. So far as specific remedies were concerned, Dr. S. considered colchicum root made into tincture and also nitrate of potash, as among the best. The general antiphlogistic plan should be usually pursued.

Dr. Bryant thought that sufficient attention had not been paid to the diagnosis of rheumatism. All the reliable tests should be used. Litmus paper would determine whether the system was in the acid or the alkaline condition. This test would soon point out the proper remedy, or rather *class* of remedies, that should be used. Dr. Bryant gave detailed accounts of cases occurring under his own abservation. He had used the sulphate of quinine with the most marked benefit in bad cases. It diminished the frequency of the pulse and caused moisture of the skin. Bleeding should sometimes precede the use of the sulphate. He had also been pleased with the use of the steam bath. This expedient was highly spoken of by the late medical journals. The Doctor discussed the theory of perfect rest as secured by the splinting process alluded to by Dr. Reeves. Rheumatism comes from a constitutional cause. It is not simply *local* in its nature. Rheumatism and neuralgia are full brothers in kind.

Dr. Harris believed that heart complications occurred more frequently than some of the speakers had admitted. He had witnessed numerous cases of this kind in the eastern hospitals. Many of these cases of cardiac disease connected with rheumatism were in persons who lived many years with it before they died. Care should be taken in making stethoscopic examinations. He was favorable to the use of the litmus paper. He had been highly delighted with the use of the bi-carbonate of potash in drachm doses. Dr. H. spoke of the lactic acid theory of rheumatism.

Dr. Hazzard discussed Dr. Fuller's views of the lactic acid theory. The excess of the lactic acid must depend upon the peculiar inflammation. Dr. Hazzard had noticed a large proportion of heart complications in rheumatism. It was easy to tell a real heart trouble from a mere nervous disturbance of that organ. Dr. H. always carried litmus paper with him, so to be ready to make a diagnosis upon the spot. Use colchicum with the alkalies in the acid diathesis. Permanganate of potash is very beneficial in chronic rheumatism. He had not bled for rheumatism during the last eighteen years. Opium and hydrate of chloral might be used to secure rest.

Dr. R. Rodgers regarded rheumatism as an inflammation of the fibrous tissues. Bleeding should be used in the highly esthenic condition of the system, but not otherwise. Colchicum combined with some of the preparations of magnesia constituted a pleasant and effective combination in the treatment of many cases of chronic rheumatism.

Dr. Kay remarked that he had occasion to take a special interest in the subject under consideration. His graduation thesis was upon rheumatism, and he had met with some quite severe cases of the malady at the very outset of his practice. He had a strong degree of confidence in the curative powers of several articles of the Materia Medica, especially the meadow saffron alluded to by others, and opium together with the several salts of potash, and more particularly the acetate. He gave a case or two as treated according to the sedative plan. One of the strange and inexplicable mysteries connected with this whole subject was as to how the same diseased condition, essentially, should be produced by causes so diametrically opposite in their character as the acid and alkaline diathesis. Yet such seemed to be the fact, and we were under the necessity of conducting ourselves accordingly. That is, we should be prepared with our litmus and other tests and then apply remedies, as it were, upon strictly chemical principles. But this should not constitute the whole of our treatment. We should use the sedatives and alteratives, and as well, also, the saline deputants.

After a session of three hours, the Society adjourned, to meet again on the second Thursday in December, the principal topic to be *Neuralgia*.

MEDICAL GLEANINGS.

TO DETERMINE THE SEX OF THE FETUS IN UTERO.—Much has been written on this subject within the last four years. A number of eminent authorities declare that the sex and the position may be determined by auscultation, during the last three months of pregnancy. Dr. Hutton, of Brooklyn, N. Y., (*N. Y. Med. Journal*) lays down the following rule: If the fetal pulsation be heard in the lower half of the uterus, it is a vertex presentation; if in the upper half, a breech presentation. If on the left side of the lower half, it is the first position; on the right side, the second position. If the pulsations are under 130 in a minute, it is a male; if over 138, it is a female. Dr. Hutton applied the test of sex in seven reported cases, without a single failure. He does not say what is the sex if the pulse is between 130 and 138, but rather leaves it to be inferred that pulsations do not occur between those limits. If the test be as facile as he asserts, there should never be any difficulty in ascertaining the sex of the coming child at any time during the last three months of gestation.—*Pac. Med. and Surg. Journal.*

CHARCOAL IN GASTRIC AND ENTERIC DISORDERS.—Dr. Remy highly recommends the use of vegetable charcoal prepared from the poplar after the process of M. Belloc. He exalts its efficacy as "truly marvelous" in the treatment of gastralgia, gastroenteralgia, dyspepsia, pyrosis, the greater number of nervous affections of the stomach and bowels, and constipation. In certain cases of dysentery, it has also been found very useful, and in one such instance, reported by Dr. Farr, of London, its effect was said to be very satisfactory in the form of enemata.—*L'Union Medicale.*

GOOD EFFECTS OF ACONITE IN ACUTE PNEUMONIA.—Among other cases of interest which came under the observation of Dr. Murchison, in the male wards of St. Thomas' Hospital, London, was that of a boy aged fifteen, who was admitted with acute pleuro-pneumonia of the right side, and herpes labialis, and considerable increase of temperature. On the administration of eight minium doses of tincture of aconite, with liquor ammoniæ acetatis every four hours, the temperature at once came down, and the disease did not increase.—*British Medical Journal.*

ANTIDOTES TO CARBOLIC ACID.—The *Philadelphia Reporter*, gives us the following in regard to carbolic acid. "Dr. T. Huseman (1872) says that oils can be used as antidotes in poisoning by carbolic acid or creosote. Curara is no antidote. Carbolate of potash and the metals are as poisonous as carbolic acid itself. Chalk is not altogether useless as an antidote, but is not so useful as the saccharine carbonate of calcium. The greatest hope as an antidote is to bring about the oxydization of the carbolic acid. A stomach pump, if at hand, is the best remedy in poisoning by carbolic acid; emetics do more harm than good."—*Chicago Medical Times.*

TREATMENT OF TERTIARY SYPHILIS.—To derive the full benefit of the iodide where there is a large amount of gummy deposit, or any of the inveterate and intractable forms of the disease in the tertiary period, it must be given in large doses—indeed, I scarcely know the limit. Little fear need be entertained about producing iodism. I have never seen it in a person suffering from tertiary syphilis. In one case the patient took three hundred grains daily for more than eight weeks, and with the disappearance of the syphilitic symptoms, he gained steadily in his general health and flesh. To obtain the best results in the use of the iodide, it should be taken thoroughly diluted—each dose in a small glass of water. If there is any nausea, a little compound tincture of bark, or an infusion of columbo may be added. The drug is more readily and perfectly absorbed when taken in this way than when taken with only a small quantity of fluid. — *The American Journal of Syphilography and Dermatology.*

LACTIC ACID IN DIABETES.—Dr. George William Balfour, in a paper read before the Medico-Chirurgical Society, of Edinburg (*Edinburg Medical Journal*, December, 1871), calls attention to some observations of Prof. Cantani, of Naples, on the use of lactic acid in diabetes, and reports seven cases of this disease in which he has employed it. Prof. Cantani believes that in diabetes the question is not so much one of increased production as of defective combustion of sugar; and this defective combustion he thinks, depends upon the production of a morbid form of glucose, which he terms para-glucose. This is incapable of being transformed into lactic acid, and therefore can not be burned but is passed unchanged in the urine. The consequence is, that the heat of the body must be miantained at first by the combustion of the albuminates and fats, and later in the disease by that of the patient's own tissues. He, in common with many modern pathologists, recognizes the liver as the organ mainly at fault in diabetes; and his treatment is partly directed toward giving it as complete a rest as possible by depriving it of its pabulum, which is accomplished by subjecting the patient to a rigorous meat diet, thus reducing to a minimum the introduction into the system of sugar-producing substances, and partly toward arresting the waste and ultimate complete degeneration of the body, by supplying a combustible agent in a quantity sufficient for the wants of the body, so that the fats may continue to be stored, and the body thus gradually brought back to its normal standard; and he hopes that this restoration of the healthy standard of the constitution, coupled with the prolonged functional rest to the organ affected, may suffice to prevent any relapse into its morbid condition, even after a return to the ordinary dietetic conditions of modern civilized life.

The combustible agent which Cantani has selected is lactic acid; and this he administers in doses of from 70 to 150 grains daily, diluted in from eight to ten fluid ounces of water. An exclusive meat-diet is insisted upon; for drink he allows water, either plain or with a little of the purest alcohol; coffee, tea, and wine being prohibited.

His results have been somewhat surprising. In recent cases, the cure is stated to be almost certain, and speedy; and even where an exclusive meat-diet is persisted in, life is apparently prolonged, and many of the unfavorable results of diabetes are prevented, though the melituria is not arrested. The success which has been claimed for the treatment in which skim-milk is the exclusive article of diet, is readily understood when we reflect that milk contains from three to six per cent. of lactin, which, under the influences of the caseous matter, becomes transformed into lactic acid.

CLAY-DRESSINGS FOR SMALLPOX.—Dr. E. S. Bunker, of Brooklyn, writes to the *Medical Record* that during the recent epidemic he used clay-dressings for two pretty decided cases of confluent smallpox. Both patients were young women. One, a married lady, æt. 23, (delivered on the second day of a six months' fœtus), made a fair recovery, took cold after getting up, and in a few days died suddenly of empyema and pericarditis; diagnosis confirmed by autopsy. The other, single, æt. 21, had the disease with great violence, recovered rapidly, and is now well. In each case he dusted finely-sifted pipe-clay over the face as soon as the pustules became fairly developed. This formed immediately a clean, dry, wholesome scab; abolished the intolerable itching and burning; served apparently as a good absorbent of infectious material; and scaled off during convalescence, leaving underneath a soft, natural integument. There was no disfigurement in either case.

Book Notices.

A PRACTICAL TREATISE ON URINARY AND RENAL DISEASES, INCLUDING URINARY DEPOSITS. Illustrated by numerous cases and engravings. By WM. ROBERTS, M. D. Second American Edition from the second revised and considerably enlarged London edition. 8vo. pp. 616. 1872. Philadelphia: H. C. Lea. Cincinnati: R. Clarke & Co.

The design of the present work is to give an account of the organic diseases of the kidney, and of those diseases and disorders of which the chief characteristic is some alteration of the urine.

The first part is devoted to the physical and chemical properties of the urine, and to the various alterations which it undergoes under different circumstances of health and disease, in so far as they seem to have a practical bearing. The methods of examining the urine for clinical purposes are explained; and the significance of the diverse changes experienced by it pointed out. The naked eye and microscopical appearances of urinary deposits are described and figured, together with those of the extraneous matters which accidentally find their way into the urine.

The second part treats of diabetes insipidus, diabetes mellitus, gravel and calculus, and chylous urine.

The organic diseases of the kidney form the subject of the third and largest part of the work.

No work in the English language has a higher standing than that of DR. ROBERT's on the Urinary and Renal Diseases, including Urinary Deposits. Every physician will find it a most valuable addition to his library.

LESSONS IN PHYSICAL DIAGNOSIS. By ALFRED LOOMIS, M. D., Prof. of the Institutes and Practice of Medicine in the University of New York, etc. Third edition, revised and enlarged. New York: Wm. Wood & Co. Cincinnati: R Clarke & Co. 8vo. pp. 240.

Loomis' work on Physical Diagnosis has been before the profession for some time, having passed through three editions, and has taken the position of a standard work.

The first eight chapters are devoted to physical diagnosis of diseases of the lungs; the ninth, tenth, eleventh, twelfth and thirteenth to diseases of the heart and thoracic aorta; the remaining eight chapters to diseases of the abdominal organs; urinary analysis—chemical and microscopical.—mechanical aids in the diagnosis of diseases of the respiratory and vasicular organs, as the stethoscope, laryngoscope, sphygmograph, etc. etc.; mechanical aids in the diagnosis of diseaaes of the nervous system, and in general diseases, as the ophthalmoscope, thermometer, dinamometer, microscope, specula, etc. etc.

Students of medicine and practitioners will find this just the work to meet their wants on the subjects of which it treats. Its instructions are full and very plain.

THE PHYSICIAN'S VISITING LIST FOR 1873. Philadelphia: Lindsay & Blakiston.

This is the twenty-second year of the publication of Lindsay & Blakiston's Visiting List; and it seems to increase in favor with the profession from year to year. Other Visiting Lists, in the meantime, have been published, possessing more or less merit, but this one all along has had the preference. We do not believe a physician can invest $1.25 from year to year to better advantage than in the purchase of one of these Lists. Besides its convenience, many a dollar would be saved.

THE TRANSACTIONS OF THE AMERICAN MEDICAL ASSOCIATION. Instituted 1847. Volume xxiii. Philadelphia: Printed for the Association. 1872. 8vo. Pp. 757.

This valuable volume of Transactions we have received from the Permanent Secretary, Dr. W. B. ATKINSON, of Philadelphia, and it is highly creditable to the talent and industry of that gentleman. The Association itself is often spoken of derogatorily, but certainly it is made to appear well by the efforts of Dr. Atkinson, in its published Transactions.

The present volume contains the address of the President, Dr. D. W. Yandell, and papers of value by Drs. E. Seguin, of New York; J. G. Richardson, of Philadelphia; Henry Hartshorne, of Philadelphia; Ephraim Cutter, of Mass.; E. A. Hildreth, of W. Va.; M Simons, of S. Carolina; F. W. Hatch, of Cal.; L. P. Bush, of Del.; Geo. W. Lawrence, of Arkansas; W. L. Wells, of Pa.; E. M. Hunt, of N. J.; C. N. Hewitt, of Minn.; H. Knapp, of N. Y.; W. H. Mussey, of Cincinnati; W. F. Peck, of Iowa; J. D. Jackson, of Ky.; S. R. Percy, of N. Y.

The Appendix contains the Nomenclature of Diseases, with reports of the majority and minority of the committee thereon.

These Transactions should be more prized than they seem to be. Each year they form a valuable volume and are certainly worth preserving.

A HAND-BOOK OF POST-MORTEM EXAMINATIONS AND OF MORBID ANATOMY. By FRANCIS DELAFIELD, M. D., Pathologist to the Roosevelt Hospital, etc. etc. New York: Wm. Wood & Co. Cincinnati: R. Clarke & Co. 1872. 8vo. Pp. 376.

In order to conduct a post-mortem examination intelligently, something more is necessary than the mere anatomical knowledge contained in a text work on anatomy. The mere anatomist would be almost as incompetent for such a duty as would one whose anatomical lore was on a par with that of an intelligent non-professional person. Besides a knowledge of anatomy, a knowledge of pathology is required, and the changes brought about by death.

In the volume before us, besides instructions on the method of making post-mortem examinations, every part and organ of the human body is described in regular order, the diseases mentioned to which they are liable, and what may be expected to be observed under different circumstances. With the knowledge had as thus set forth, a physician would be quite qualified to conduct a post-mortem, but not without.

We cordially recommend the work to our subscribers, feeling confident that it will supply an important want.

Editorial.

DELIRIUM TREMENS.—Dr. Anstie, in a lecture on Diseases of the Nervous System, published in the *Lancet* of Nov. 9, makes the following statements in regard to delirium tremens: "Formerly it was a universal, and it is still a common custom, to regard this disease as the characteristic event in the nervous life of drunkards; but it is now known to bear but small importance in comparison with the long train of chronic nervous symptoms which make up the picture of chronic alcoholism. Formerly it was supposed that delirium tremens was the inevitable result of temporary abstinence after habits of drinking—

'the system lost its accustomed stimulus.' Both these ideas were quite wrong. Delirium tremens may never occur—never does occur in the vast majority even of excessive drunkards; and its out-break is not caused by the abstinence, but the abstinence is a symptom of the outbreak; moreover, many patients do not abstain, but drink on into the height of delirium. All one can say is that in a certain (not large) percentage of people who drink heavily the course of chronic symptoms occasionally culminates in an attack of delirium tremens.

"Now the important thing to remember is that all the alarming train of symptoms would (bar accidents) subside spontaneously. In about three days from the outbreak of the acuter symptoms, or perhaps a week from the first occurrence of total insomnia and spectral illusions, the average delirium tremens patient will get his first sleep, and from that moment will rapidly convalesce, *provided he has been kept entirely without alcohol, and has been fairly fed, and provided that no violent attempts have been made to narcotize him with opium.* However, it is not necessary now-a-days to let the attack run so long a course, for in hydrate of chloral we possess a remedy which we may safely give, with boldness, to procure sleep, whereas opium was never safe when given boldly. We administer chloral in a single dose of thirty grains, and if sleep does not occur within an hour, we give a second thirty grains; and it is rare indeed that the patient does not get two or three hours of sound repose; sometimes much more.

"When there is any tendency to epileptiform convulsion, I prefer bromide of potassium—twenty grains every two hours."

SOCIAL EVIL.—At a meeting in behalf of a Social Evil Hospital, in St. Louis, the Mayor said: "As many are of the belief that the fact of legally regulating houses of prostitution causes an increase of the evil, I am happy to state that such is not the fact. There has been an actual decrease in the number of these houses and their inmates since the establishment of this law, and the decrease in disease is fully fifty per cent. If this be the case, we think we have all just cause for congratulation that the cause of humanity is being benefited by the social evil ordinance, and that, looking at past results, it can scarcely longer be called an experiment, but a success in all that its most sanguine advocates claimed for it."

A TRIAL OF 50 YEARS.—The *New York Observer* has passed through the ordeal, and starts out anew on the second fifty years with a larger list of readers and more numerous friends than ever. Such a steady course of prosperity is unexampled, and inspires confidence. We heartily rejoice in the great success of a paper which has always advocated those sound principles that underlie the foundations of society and good government. Orthodox in the truest sense, both in Church and State, its influence is always good. We see its publishers propose to give to every subscriber for 1873 an appropriately embellished *Jubilee Year-Book.* Those who subscribe will have no cause to regret the step. $3 a year. Sidney E. Morse & Co., 37 Park Row, New York.

CODMAN & SHURTLEFF.—We have received the card below from Codman and Shurtleff, makers and importers of Surgical and Dental Instruments, Boston, Mass.

TO OUR PATRONS:—The object of this circular is to remove the doubts that will naturally arise respecting our means of filling orders since the disastrous fire but just extinguished, which has laid in ruins most of the business part of our city. We are so fortunate as to have entirely escaped all direct loss: our Store, Factories, Stock and Machinery are in their usual condition, no attempt at removal even having been necessary.

We therefore join with our patrons in the sympathy we are sure will be universally felt for those less fortunate than ourselves. We thank our friends for their liberal patronage in the past, and assure them that our facilities for meeting their wants, and our desire to do so to their entire satisfaction, remain undiminished.

CODMAN & SHURTLEFF.

E. GUNDLACH.—In a previous number we announced the intention of the eminent German maker of microscopic objectives, E. GUNDLACH, to make his home in this country. We are now glad to inform our readers that he has settled at Hackensack, New Jersey, where he designs to devote himself to the production of the very finest first-class objectives. Gundlach's objectives have the very highest standing, not only in Germany, but in England and this country; and while fully equal to those of the most celebrated makers of this country and Europe, they are most decidedly the cheapest.

His manufactory at Charlottenburg, near Berlin, Prussia, will still be continued, but only from Hackensack, New Jersey, can the objectives of *his own make* be procured.

We append a list of his American prices:

Three inch adjustable to 4 inch	$20	gold.
Two inch	15	"
One inch	14	"
One-half inch	15	"
One-half inch with adjustment	20	"
One-third " " "	22	"
One-fourth " "	24	"
One-sixth " " "	26	"
One-eight " " "	30	"
One-eleventh " "	36	"
One-eleventh inch, immersion with adjustment	36	"
One-sixteenth " " " "	42	"
One twenty-fourth " " "	55	"
One-thirty-second " " "	80	"
One-fiftieth " " "	125	"

We hope the low rates at which this distinguished maker proposes to furnish the very finest glasses will give a new impulse to microscopy in this country, which we regret to say is very much neglected. It will be observed that his prices are not materially greater than American makers charge for second quality objectives.

PINUS CANADENSIS.—The fluid extract of this medicine made by Mr. S. H. KENNEDY, of Johnstown, N. Y., seems to be constantly increasing in the favor of the profession. We hear very many physicians speaking of it in very high terms both as a topical remedy and administered internally. We have employed it locally ourself with the best results, in full strength and diluted from one-half to one-fourth. We recommend those who have not tried it to do so, as we confidently believe they will find it as efficacious as represented.

HARPERS' WEEKLY.—Those of our readers in receipt of this handsome periodical will readily concur with us in the recognition of its claim to the first place in the list of illustrated American journals. For editorial ability it is far ahead of any of its contemporaries; and the artistic excellence of its engravings will compare favorably with the best of the European illustrated papers. The supplement, containing Dore's remarkable illustrations of London Scenes, is alone worth the price of a year's subscription. And deservedly, the popularity of this beautiful periodical has increased to a degree well-nigh unprecedented within the last few years. Price $4 00 per year. HARPER BROTHERS, New York.

PAMPHLETS RECEIVED.—Medical and General Science as Vindicators of the Mosaic Record and as Repudiators of the Modern Doctrines of Development and Selection. By E. S. Gaillard, M. D. Reprinted from the *Richmond and Louisville Medical Journal.*

This is a pamphlet of some fifty-two octavo pages, devoted to the vindication of the Mosaic record. We have not had time even to cursorily examine it, but we have no doubt from the known ability of the author that he has made out as good a case of his side of the question as could well be done. Those who are interested in the validity of the Mosaic record should procure a copy of this paper of Dr. Gaillard, and also Baldwin on Pre-Historic Ages.

Report on the Structure of the White Blood Corpuscle to the American Medical Association. By J. G. Richardson, M. D., Microscopist to the Pennsylvania Hospital, etc.

This Report gives an account of the experiments of the author to elucidate three points left undetermined by Prof. Stricker in regard to the white corpuscles; viz., while inclining somewhat to the view that the white corpuscle, at least in the latter stages of its development, possesses a cell wall, differentiated in structure from the cell contents, he, Prof. Stricker, does not accept as proven the existence of such a membrane; that he considers that the laws according to which leucocytes appear to take up fluid are unknown, although he deems it probable that diffusion plays a part; further, he seems to think that the molecular or "dancing" movement in the salivary corpuscles differs from that seen under certain conditions in colorless blood, pus, and other corpuscles, insomuch as it ceases on the addition of a half to one per cent. solution of common salt which "still permits the movements in fresh pus or lymph corpuscles to continue."

Dr. Richardson's conclusions are that "the white corpuscle is a cell composed of, in the first place, a nucleus (or nuclei) which possesses the power of independent amœboid movement, and is insoluble in water, but capable of slowly imbibing that fluid until swollen to nearly double its normal size. The cell wall of the corpuscle is a membranous envelope firm enough to restrict the movement of its contained granules within its limits. The material occupying the space between the capsule and the nucleus, denominated the protoplasm of the cell, is a soft, jelly-like matter in which chiefly resides the capacity of amœboid motion.

"The laws by which leucocytes take up and part with fluid seem to be simply those of the dialysis of liquids through animal membranes by endosmosis and exosmosis.

"I therefore am induced to think from the above investigations that no essential difference exists in the effects of salt solutions of various strengths upon the salivary pus and white blood-corpuscles; and from this circumstance, in conjunction with the interesting fact discovered during Experiment V., that the salivary globules, when acted upon by the denser saline liquid, *contract* to the size of the blood leucocytes, and manifest amœboid movements, I conclude my theory, that the corpuscles of the saliva are 'migrating' white blood globules, which, 'wandering out' into the oral cavity, have become distended by the endosmosis of the rarer fluid in which they float, may now be considered established upon a firm experimental basis."

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